

# Tristel Shine Solutions

## Working Solution Safety Data Sheet

### 1. Identification

|                   |  |
|-------------------|--|
| Product Name:     | <b>Tristel Shine Solutions</b><br><b>Working solution</b>  |
| Product Code:     | <b>SHINE</b>   |
| Type of product:  | Single-Use sporicidal disinfectant for medical instruments processed using Tristel Shine                       |
| Manufacturer:     | Tristel Solutions Limited<br>Lynx Business Park<br>Fordham Road<br>Snailwell<br>Cambs, CB8 7NY, United Kingdom |
| Telephone Number: | +44 (0) 1638 721500<br>+44 (0) 7798 805692 (Out of hours contact)  |
| Fax Number:       | +44 (0) 1638 721911  |
| Email:            | healthandsafety@tristel.com  |
| Chemical type:    | Mild Oxidising Solution  |

### 2. Hazards

|                        |  |
|------------------------|--|
| <b>identification:</b> | Chlorine dioxide generator<br>WEL - 0.84 mg/m <sup>3</sup> short term, 15 minute reference period<br>- 0.28 mg/m <sup>3</sup> long term, 8 hour TWA reference period |
|------------------------|--|

### 3. Composition:

| Ingredients                                   | CAS No     | EINECS No | Wt/Vol %   | Symbol                               |
|---|------------|-----------|------------|--------------------------------------|
| Chlorine dioxide in aqueous solution<br>Water | 10049-04-4 | 233-162-8 | 0.01-0.012 | ClO <sub>2</sub><br>H <sub>2</sub> O |

### 4. First aid measures:

|               |  |
|---------------|--|
| Inhalation:   | Non-toxic  |
| Eye contact:  | Rinse eyes with water  |
| Skin contact: | Wash affected area with water  |
| Ingestion:    | Do not induce vomiting. Give milk or water to drink<br>Seek medical advice where necessary |

### 5. Fire fighting measures:

Non flammable

### 6. Accidental release measures:

|                            |  |
|----------------------------|--|
| Environmental precautions: | Environmental precautions required but product is biodegradable under OECD conditions operational 6/1995 |
| Clean up method:           | Flush to drain with water or soak up onto inert material and dispose of with clinical waste              |
| Clothing for disposal:     | Wear appropriate gloves and apron  |

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### 7. Handling and storage:

|                      |   |
|----------------------|---|
| Handling guidelines: | Safe handling in accordance with label instructions<br>Not to be mixed with other chemicals<br>Keep from children |
| Storage guidelines:  | Store out of direct sunlight<br>Single-use solution for use in Tristel Shine only                                 |

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### 8. Exposure controls/personal protection:

|                      |   |
|----------------------|---|
| Personal protection: | Avoid eye contact and prolonged skin contact<br>Gloves and apron recommended        |
| Skin contact:        | Low risk  |
| Eye contact:         | Low risk  |
| Inhalation:          | Low risk  |
| Ingestion:           | Low risk, substantial ingestion may cause discomfort to mouth and digestive tissues |

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### 9. Physical and chemical properties:

|                             |                              |
|-----------------------------|------------------------------|
| Physical state:             | Liquid                       |
| Appearance and odour:       | Light yellow with mild odour |
| Evaporation rate:           | As water                     |
| Boiling point:              | As water                     |
| Freezing point:             | As water                     |
| % Volatile (by weight):     | Not known                    |
| Solubility in water (20°C): | Soluble                      |
| pH:                         | 4.5 - 6.0                    |
| Specific gravity            | 1.005 @ 20°C                 |

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## 10. Stability and reactivity:

Decomposes to simple salt solution

Hazardous decomposition products: None under normal use

Chlorine donors and oxygen produced if heated

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## 11. Toxicological information:

|                    |             |
|--------------------|-------------|
| Acute Oral LD50    | >5000 mg/kg |
| Irritation to skin | Negative    |
| Irritation to eyes | Negative    |
| Sensitisation      | Negative    |

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## 12. Ecological information:

Presents no known hazards to the environment

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## 13. Disposal considerations:

|                         |   |
|-------------------------|---|
| Packaging:              | Can be disposed of as normal waste in accordance with local authority regulations                               |
| Contaminated packaging: | May be disposed of safely under normal conditions in accordance with local authority regulations                |
| Product:                | Solution to be disposed of in accordance with spillage instructions as explained in accidental release measures |

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## 14. Transport information:

Not applicable

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## 15. Regulatory information:

Not a licensed medicine

Approved under EEC 93/42 and the 2007/47 amendments thereto for contact with medical devices

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## 16. Other information:

Safety phrases:

(2) Keep out of reach of children

(24/25) Avoid contact with eyes and skin

(50) Do not mix with other chemicals

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## Tristel SHINE Solutions Activator & Base Safety Data Sheet

|   |  |   |  |
|---|--|---|--|
| <b>1. Identification</b>                          |  | <b>1. Identification</b>                          |  |
| <b>Product Name:</b>                              | <b>Tristel SHINE - Activator</b>   | <b>Product Name:</b>                              | <b>Tristel SHINE – Base</b>  |
| <b>Chemical Type:</b>                             | Sodium salt solution   | <b>Chemical Type:</b>                             | Organic acid blend   |
| <b>2. Hazards Identification:</b>                 | No specific hazards<br>Contact with acids liberates chlorine dioxide                                     | <b>2. Hazards Identification:</b>                 | No specific hazards  |
| <b>3. Composition/information on ingredients:</b> |  | <b>3. Composition/information on ingredients:</b> |  |
| <b>Major ingredients:</b>                         | 2.6% Sodium Chlorite solution in de-mineralised water  | <b>Major ingredients:</b>                         | 6.5% solution of Citric Acid,<br>0.05% Boric Acid<br>0.05% Sorbic Acid<br>in de-mineralised water        |
| <b>4. First-aid measures:</b>                     |  | <b>4. First-aid measures:</b>                     |  |
| Inhalation:                                       | Non-toxic  | Inhalation:                                       | Non-toxic  |
| Eye contact:                                      | Rinse eyes with water  | Eye contact:                                      | Rinse eyes with water  |
| Skin contact:                                     | Wash affected area with water  | Skin contact:                                     | Wash affected area with water  |
| Ingestion:  | Do not induce vomiting<br>give milk or water to drink<br><br>Seek medical advice where necessary         | Ingestion:  | Do not induce vomiting<br>give milk or water to drink<br><br>Seek medical advice where necessary         |
| <b>5. Fire fighting measures:</b>                 |  | <b>5. Fire fighting measures:</b>                 |  |
| Non flammable                                     |  | Non flammable                                     |  |
| <b>6. Accidental release measures:</b>            |  | <b>6. Accidental release measures:</b>            |  |
| Environmental Precautions:                        | Environmental precautions required but product is biodegradable under OECD conditions operational 6/1995 | Environmental Precautions:                        | Environmental precautions required but product is biodegradable under OECD conditions operational 6/1995 |
| Clean up method:                                  | Flush to drain with water or soak up onto inert material and dispose of with clinical waste              | Clean up method:                                  | Flush to drain with water or soak up onto inert material and dispose of with clinical waste              |
| Clothing for disposal:                            | Wear appropriate gloves and apron  | Clothing for disposal:                            | Wear appropriate gloves and apron  |

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## Tristel SHINE Solutions Activator & Base Safety Data Sheet

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| <b>Product Name:</b> Tristel SHINE – | <b>Product</b> Tristel SHINE - Base |
|--------------------------------------|-------------------------------------|

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|--|--|
| <b>Activator</b>   | <b>Name:</b>   |
| <b>7. Handling and storage:</b><br><br>Handling guidelines: Safe handling in accordance with label instructions<br><br>Not to be mixed with other chemicals<br><br>Keep from children<br><br>Storage guidelines: Store out of direct sunlight<br>Two year shelf life - see product for expiry date   | <b>7. Handling and storage:</b><br><br>Handling guidelines: Safe handling in accordance with label instructions<br><br>Not to be mixed with other chemicals<br><br>Keep from children<br><br>Storage guidelines: Store out of direct sunlight<br>Two year shelf life – see product for expiry date   |
| <b>8. Exposure controls/personal protection:</b><br><br>Personal protection: Avoid eye contact and prolonged skin contact<br><br>Gloves and apron recommended<br><br>Skin contact: Low risk<br><br>Eye contact: Low risk<br><br>Inhalation: Low risk<br><br>Ingestion: Low risk, substantial ingestion may cause discomfort to mouth and digestive tissues | <b>8. Exposure controls/personal protection:</b><br><br>Personal protection: Avoid eye contact and prolonged skin contact<br><br>Gloves and apron recommended<br><br>Skin contact: Low risk<br><br>Eye contact: Low risk<br><br>Inhalation: Low risk<br><br>Ingestion: Low risk, substantial ingestion may cause discomfort to mouth and digestive tissues |
| <b>9. Physical and chemical Properties:</b><br>Physical state: Liquid<br><br>Appearance: Clear colourless solution<br>odour: no odour<br><br>Evaporation rate: As water<br><br>Boiling point: As water<br><br>Freezing point: As water<br><br>% Volatile (by weight): Not known  | <b>9. Physical and chemical Properties:</b><br>Physical state: Liquid<br><br>Appearance : Pale blue solution<br>odour: no odour<br><br>Evaporation rate: As water<br><br>Boiling point: As water<br><br>Freezing point: As water<br><br>% Volatile (by weight): Not known  |

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## Tristel SHINE Solutions Activator & Base Safety Data Sheet

|  |   |
|--|---|
| <b>Product Name:</b> Tristel SHINE - Activator | <b>Product Name:</b> Tristel SHINE - Base |
|--|---|

|   |  |
|---|--|
| <p><b>Physical and chemical Properties continued:</b></p> <p>Solubility in water (20° C)      Soluble</p> <p>pH:                                      11.5 – 13.0</p> <p>Specific gravity:                      1.025 @ 20° C</p>   | <p><b>Physical and chemical Properties continued:</b></p> <p>Solubility in water (20° C)      Soluble</p> <p>pH:                                      1.5 – 2.5</p> <p>Specific gravity:                      1.030 @ 20° C</p>  |
| <p><b>10. Stability and reactivity:</b></p> <p>No decomposition if stored and used as directed</p> <p>Hazardous decomposition products:      None under normal use</p> <p>Chlorine donors and oxygen produced if heated</p>   | <p><b>10. Stability and reactivity:</b></p> <p>No decomposition if stored and used as directed</p> <p>Hazardous decomposition products:      None under normal use</p> <p>Not compatible with alkaline substance and chlorine donors</p>   |
| <p><b>11. Toxicological information:</b><br/><b>Sodium Chlorite</b></p> <p>Acute oral LD50:                      &gt;4000 mg/kg</p> <p>Irritation to skin:                      Minimally irritating</p> <p>Irritation to eyes:                      Mild Irritant</p>  | <p><b>11. Toxicological information:</b><br/><b>Citric Acid</b></p> <p>Acute oral LD50:                      &gt;11750 mg/kg</p> <p>Irritation to skin:                      Mild irritant under prolonged contact</p> <p>Irritation to eyes:                      Irritant</p>  |
| <p><b>12. Ecological information:</b></p> <p>No known adverse effects from normal use</p>   | <p><b>12. Ecological information:</b></p> <p>No known adverse effects from normal use</p>  |
| <p><b>13. Disposal considerations:</b></p> <p>Packaging:                              Can be disposed of as normal waste in accordance with local authority regulations</p> <p>Contaminated packaging:              May be disposed of safely under normal conditions in accordance with local authority regulations</p> <p>Product:                                      Solution to be disposed of in accordance with spillage instructions as explained in accidental release measures</p> | <p><b>13. Disposal considerations:</b></p> <p>Packaging:                              Can be disposed of as normal waste in accordance with local authority regulations</p> <p>Contaminated packaging:              May be disposed of safely under normal conditions in accordance with local authority regulations</p> <p>Product:                                      Solution to be disposed of in accordance with spillage instructions as explained in accidental release measures</p> <p style="text-align: right;">This document conforms with the Regulations of REACH, 2007</p> |

**Tristel SHINE Solutions**  
**Activator & Base Safety Data Sheet**

|   |  |
|---|--|
| <p><b>Product Name:</b>    <b>Tristel SHINE - Activator</b></p> | <p><b>Product Name:</b>    <b>Tristel SHINE - Base</b></p> |
|---|--|

