Safety Data Sheet
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS
Revision: 4/22/2015

1 Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier
  - Trade name: OptiShield II Plus Corrosion Inhibitor
  - Application of the substance / the preparation: Water treatment

- 1.3 Details of the supplier of the Safety Data Sheet
  - Manufacturer/Supplier:
    Opti Temp
    1500 International Drive
    Traverse City, MI 49686
    Tel: (231) 946.2931
    E-mail: Information@OptiTemp.com

- 1.4 Further information obtainable from:
  - Product Safety Department

- 1.4 Emergency telephone number:
  - (231) 946-2931

2 Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008
    The product is not classified according to the CLP regulation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  - Not applicable.

- Information concerning particular hazards for human and environment:
  - The product does not have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:
  - The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- 2.2 Label elements
  - Labeling according to Regulation (EC) No 1272/2008: N/A
  - Hazard pictograms: N/A
  - Signal word: N/A
  - Hazard statements:
    - Contains tosylchloramide sodium. May produce an allergic reaction.
    - Safety data sheet available on request.

- Hazard description:
  - WHMIS-symbols: Not hazardous under WHMIS.

- NFPA ratings (scale 0 - 4)
  - Health = 0
  - Fire = 0
  - Reactivity = 0

- HMIS-ratings (scale 0 - 4)
  - Health = 0
  - Fire = 0
  - Reactivity = 0
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2.3 Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients
3.2 Mixtures
Description: Mixture of substances listed below with nonhazardous additions.
Dangerous components: N/A
Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures
4.1 Description of first aid measures
General information: No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact:
Generally the product does not irritate the skin.
Immediately rinse with water.
If skin irritation continues, consult a doctor.
After eye contact:
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:
Do not induce vomiting; call for medical help immediately.
Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed Allergic reactions

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Firefighting measures
5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
No further relevant information available.

5.3 Advice for firefighters
Protective equipment:
Wear self-contained respiratory protective device.
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.
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6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  Wear protective clothing.

- **6.2 Environmental precautions:** Dilute with plenty of water.

- **6.3 Methods and material for containment and cleaning up:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Clean the affected area carefully; suitable cleaners are:
  Warm water and cleansing agent

- **6.4 Reference to other sections**
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- **7.1 Precautions for safe handling**
  Store in cool, dry place in tightly closed receptacles.

- **Information about fire - and explosion protection:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**
  **Storage:**
  No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**
  Store in cool, dry conditions in well sealed receptacles.

- **7.3 Specific end use(s)**
  No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**
  No further data; see item 7.

- **8.1 Control parameters**
  **Ingredients with limit values that require monitoring at the workplace:**
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:**
  The lists valid during the making were used as basis.

- **8.2 Exposure controls**
  **Personal protective equipment:**
  **General protective and hygienic measures:**
  The usual precautionary measures are to be adhered to when handling chemicals.
  Wash hands before breaks and at the end of work.
  Avoid close or long term contact with the skin.
  **Respiratory protection:**
  Not necessary if room is well-ventilated.
  Use suitable respiratory protective device in case of insufficient ventilation.
  **Protection of hands:**
  Rubber gloves
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The glove material has to be impermeable and resistant to the product/the substance/the preparation. Due to missing tests no recommendation to the glove material can be given for the product/the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
Safety glasses

Goggles recommended during refilling

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - Form: Liquid
    - Color: Light yellow
    - Odor: Mild
    - Odor threshold: Not determined.
  - **pH-value at 20°C:** 8,5
  - **Change in condition**
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: 100°C
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:** Not established
  - **Decomposition temperature:** Not determined.
  - **Self-igniting:** Product is not self igniting.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - Lower: Not determined.
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour pressure at 20°C:</td>
<td>23 hPa</td>
</tr>
<tr>
<td>Density at 20°C:</td>
<td>1.02 g/cm³</td>
</tr>
<tr>
<td>Relative density of vapour:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water:</td>
<td>Fully miscible.</td>
</tr>
<tr>
<td>Segregation coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>Organic solvents:</td>
<td>&lt;10 %</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
  No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions:
  No dangerous reactions known.
- 10.4 Conditions to avoid:
  No further relevant information available.
- 10.5 Incompatible materials:
  No further relevant information available.
- 10.6 Hazardous decomposition products:
  Possible in traces. Irritant gases/vapors

11 Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization:
    Sensitizing effect through inhalation is possible by prolonged exposure. Sensitizing effect by skin contact is possible by prolonged exposure.
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- Additional toxicological information:
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

12 Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
  - General notes: The product contains materials that are harmful to the environment.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

13 Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
    Smaller quantities can be disposed of with household waste.
    Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
  - Unclean packaging:
    - Recommendation: Disposal must be made according to official regulations.
    - Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

- 14.1 UN-Number
  - DOT, ADR, ADN, IMDG, IATA N/A
- 14.2 UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA N/A
- 14.3 Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA
    - Class N/A
- 14.4 Packing group
  - DOT, ADR, IMDG, IATA N/A
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15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
• United States (USA)
  • SARA
    • Section 355 (extremely hazardous substances):
      None of the ingredients is listed.
    • Section 313 (Specific toxic chemical listings):
      None of the ingredients is listed.
    • TSCA (Toxic Substances Control Act):
      All ingredients are listed.
    • Proposition 65 (California):
      • Chemicals known to cause cancer:
        None of the ingredients is listed.
      • Chemicals known to cause reproductive toxicity for females:
        None of the ingredients is listed.
      • Chemicals known to cause reproductive toxicity for males:
        None of the ingredients is listed.
      • Chemicals known to cause developmental toxicity:
        None of the ingredients is listed.
  • Carcinogenic Categories
    • EPA (Environmental Protection Agency)
      None of the ingredients is listed.
    • TLV (Threshold Limit Value established by ACGIH)
      None of the ingredients is listed.
    • NIOSH-Ca (National Institute for Occupational Safety and Health)
      None of the ingredients is listed.
    • OSHA-Ca (Occupational Safety & Health Administration)
      None of the ingredients is listed.
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<table>
<thead>
<tr>
<th>Trade name: OPTISHIELD II PLUS Corrosion Inhibitor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>· Canada</strong></td>
</tr>
<tr>
<td><strong>· Canadian Domestic Substances List (DSL)</strong></td>
</tr>
<tr>
<td>All ingredients are listed.</td>
</tr>
<tr>
<td><strong>· Canadian Ingredient Disclosure list (limit 0.1%)</strong></td>
</tr>
<tr>
<td>127-65-1 tosylchloramide sodium</td>
</tr>
<tr>
<td><strong>· Canadian Ingredient Disclosure list (limit 1%)</strong></td>
</tr>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td><strong>· 15.2 Chemical safety assessment:</strong> A Chemical Safety Assessment has not been carried out.</td>
</tr>
</tbody>
</table>

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Abbreviations and acronyms:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labeling of Chemicals
- ACGIH: American Conference of Governmental Industrial Hygienists
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- WHMIS: Workplace Hazardous Materials Information System (Canada)