

# Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA  
GHS

D002491AG, SDS. OTS+

Revision: 04.01.2017

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

- **1.1 Product identifier**
- **Trade name:** OptiShield Plus Corrosion Inhibitor
- **Other product identifiers:** OTS Plus
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture:** 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 Emergency telephone number:** (231) 946-2931



## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**
-   
GHS08
- **Signal word** Danger
- **Hazard-determining components of labelling:**  
tosylchloramide sodium  
trisodium orthophosphate  
6-methylbenzotriazole  
sodium nitrate
- **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

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H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

• **Precautionary statements**

P284 In case of inadequate ventilation wear respiratory protection.  
 P261 Avoid breathing mist/vapours/spray.  
 P264 Wash thoroughly after handling.  
 P280 Wear protective gloves / eye protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

• **3.2 Mixtures**

• **Components:**

CAS: 136-85-6 EINECS: 205-265-8	6-methylbenzotriazole ⚠ Acute Tox. 4, H302	<2,5%
CAS: 7601-54-9 EINECS: 231-509-8	trisodium orthophosphate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<2,2%
CAS: 7631-95-0 EINECS: 231-551-7	Sodium molybdate substance with a Community workplace exposure limit	1-2%
CAS: 127-65-1 EINECS: 204-854-7 Index number: 616-010-00-9	tosylchloramide sodium ⚠ Resp. Sens. 1, H334 ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H302	<1%
CAS: 7631-99-4 EINECS: 231-554-3	sodium nitrate ⚠ Ox. Sol. 2, H272 ⚠ Eye Irrit. 2, H319	<1%

• **Additional information:**

For the wording of the listed Hazard Statements refer to section 16.

For the listed ingredient(s), the identity and/or exact percentages are being withheld as a trade secret.

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## SECTION 4: First aid measures

### · 4.1 Description of first aid measures

#### · After inhalation:

Supply fresh air; consult doctor in case of complaints.  
Provide oxygen treatment if affected person has difficulty breathing.

#### · After skin contact:

Immediately remove any clothing soiled by the product.  
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:

Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.

### · 4.2 Most important symptoms and effects, both acute and delayed

Asthma attacks  
Dizziness  
Gastric or intestinal disorders.  
Irritant to skin and mucous membranes.  
Causes eye irritation.  
Methaemoglobinaemia  
Breathing difficulty  
Coughing  
Allergic reactions

#### · Hazards:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Danger of disturbed cardiac rhythm.  
Danger of circulatory collapse.

### · 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### · 5.1 Extinguishing media

#### · Suitable extinguishing agents:

The product is not flammable.  
Use fire extinguishing methods suitable to surrounding conditions.

#### · For safety reasons unsuitable extinguishing agents: None.

### · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

### · 5.3 Advice for firefighters

#### · Protective equipment:

Wear self-contained respiratory protective device.

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Wear fully protective suit.

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### SECTION 6: Accidental release measures

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

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Particular danger of slipping on leaked/spilled product.

Ensure adequate ventilation

- **6.2 Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **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.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Avoid breathing mist/vapours/spray.

Avoid contact with the eyes and skin.

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

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Use only receptacles specifically permitted for this substance/product.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store together with acids.

- **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.

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## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

#### · Ingredients with limit values that require monitoring at the workplace:

##### 7601-54-9 trisodium orthophosphate

WEEL (USA) Short-term value: 5 mg/m<sup>3</sup>

##### 7631-95-0 Sodium molybdate

PEL (USA) Long-term value: 5 mg/m<sup>3</sup>  
as Mo

TLV (USA) Long-term value: 0,5 mg/m<sup>3</sup>  
as Mo; respirable fraction

### · 8.2 Exposure controls

#### · Personal protective equipment:

#### · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

#### · Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

#### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

#### · Material of gloves Rubber gloves

#### · Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

#### · Body protection: Protective work clothing

## SECTION 9: Physical and chemical properties

### · 9.1 Information on basic physical and chemical properties

#### · Appearance

Form: Liquid

Colour: Clear

Light yellow

· Odour: Mild

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· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	11 - 12
· <b>Melting point/freezing point:</b>	Not determined.
· <b>Initial boiling point and boiling range:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Auto/Self-ignition temperature:</b>	Not applicable.
· <b>Decomposition temperature:</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure:</b>	Not determined.
· <b>Density:</b>	
<b>Relative density:</b>	1,03
<b>Vapour density:</b>	Not determined.
<b>Evaporation rate:</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Soluble.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with acids.
- **10.4 Conditions to avoid** Avoid acids.
- **10.5 Incompatible materials** Strong acids.
- **10.6 Hazardous decomposition products**  
Possible in traces.  
Carbon monoxide and carbon dioxide  
Nitrogen oxides  
Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>)

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Chlorine

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

- **Acute toxicity:** Based on available data, the classification criteria are not met.

#### LD/LC50 values relevant for classification:

136-85-6 6-methylbenzotriazole

Oral	LD50	1600 mg/kg (rat)
------	------	------------------

- **Primary irritant effect**
- **Skin corrosion/irritation:**  
Causes skin irritation.
- **Serious eye damage/irritation:**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation:**  
Contains tosylchloramide sodium. May produce an allergic reaction.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Carcinogenic categories

#### IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

#### NTP (National Toxicology Program):

None of the ingredients are listed.

#### OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

#### Probable routes of exposure:

Ingestion.  
Inhalation  
Eye contact.  
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

## SECTION 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** Non significant accumulation in organisms

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- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Small amounts may be diluted with plenty of water and washed away. Dispose of larger amounts in accordance with Local Authority requirements.  
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

- |  |                 |
|--|-----------------|
| · <b>14.1 UN-Number</b>                    |                 |
| · DOT, ADR, IMDG, IATA                     | Not Regulated   |
| · <b>14.2 UN proper shipping name</b>      |                 |
| · DOT, ADR, IMDG, IATA                     | Not Regulated   |
| · <b>14.3 Transport hazard class(es)</b>   |                 |
| · DOT, ADR, IMDG, IATA                     |                 |
| · Class                                    | Not Regulated   |
| · <b>14.4 Packing group</b>                |                 |
| · DOT, ADR, IMDG, IATA                     | Not Regulated   |
| · <b>14.5 Environmental hazards:</b>       |                 |
| · Marine pollutant:                        | No              |
| · <b>14.6 Special precautions for user</b> | Not applicable. |

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- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

## SECTION 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 are listed.

- **Section 313 (Specific toxic chemical listings):**

7601-54-9 | trisodium orthophosphate

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65 (California):**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- **Relevant phrases**

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

- **Abbreviations and acronyms:**

ADR: 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 Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Ox. Sol. 2: Oxidizing solids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

- **Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))

Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do))

Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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Website: [www.chemtelinc.com](http://www.chemtelinc.com)