

SAFETY DATA SHEET

Revision Date: 01/13/2016

Print Date: 1/13/2016

SDS Number: 000000255238

Performax™ DC5503 COOLING WATER TREATMENT
 ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries
 858154

Version: 1.1

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Performax™ DC5503
 COOLING WATER TREATMENT
 ™ Trademark, Solenis or its subsidiaries or affiliates, registered in various countries

Recommended use of the chemical and restrictions on use

<p>Details of the supplier of the safety data sheet Solenis LLC</p>	<p>Emergency telephone number 1-844-SOLENIS (844-765-3647) / 606-329-5705</p>
<p>500 Hercules Road Wilmington, Delaware 19808 United States of America</p> <p>RegulatoryRequestsNA@solenis.com</p>	<p>Product Information 1-844-SOLENIS (844-765-3647)</p>

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to Metals : Category 1
 Skin corrosion : Category 1
 Serious eye damage : Category 1


GHS Label element

Hazard pictograms :



Signal Word : Danger

Hazard Statements : May be corrosive to metals.
 Causes severe skin burns and eye damage.

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Causes serious eye damage.

Precautionary Statements

: Prevention:
 Keep only in original container.
 Wash skin thoroughly after handling.
 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
 Wash contaminated clothing before reuse.
 Absorb spillage to prevent material damage.

Storage:
 Store locked up.
 Store in corrosive resistant stainless steel container with a resistant inner liner.

Disposal:
 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Static Accumulating liquid

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
 Chemical nature : Defatter

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
PHOSPHONIC ACID DERIVATIVE	254504001-5182	Met. Corr. 1; H290	13.33
		Acute Tox. 4; H302	
		Eye Dam. 1; H318	

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SECTION 4. FIRST AID MEASURES

- General advice** : Move out of dangerous area.
 Consult a physician.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.
- If inhaled** : Move to fresh air.
 If breathed in, move person into fresh air.
 Keep patient warm and at rest.
~~If unconscious place in recovery position and seek medical advice.~~
 If symptoms persist, call a physician.
- In case of skin contact** : If on skin, rinse well with water.
 Wash contaminated clothing before re-use.
- In case of eye contact** : In the case of contact with eyes, rinse immediately with plenty
 of water and seek medical advice.
 Continue rinsing eyes during transport to hospital.
 Remove contact lenses.
 Protect unharmed eye.
- If swallowed** : Get medical attention immediately.
 Do NOT induce vomiting.
 Rinse mouth with water.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed** : Signs and symptoms of exposure to this material through
 breathing, swallowing, and/or passage of the material through
 the skin may include:
 stomach or intestinal upset (nausea, vomiting, diarrhea)
 irritation (nose, throat, airways)
 Causes serious eye damage.
 Causes severe burns.
- Notes to physician** : No hazards which require special first aid measures.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO2)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : carbon dioxide and carbon monoxide
Oxides of phosphorus
- Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal.
- Other information : Comply with all applicable federal, state, and local regulations.

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SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Do not breathe vapours/dust.
 When diluting, always add the product to water. Never add water to the product.
 Container hazardous when empty.
 Avoid contact with skin and eyes.
 Smoking, eating and drinking should be prohibited in the application area.
 For personal protection see section 8.
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
 Containers which are opened must be carefully resealed and kept upright to prevent leakage.
 Observe label precautions.
 Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures : Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Respiratory protection : A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

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- Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Safety glasses
- Skin and body protection : Wear as appropriate:
impervious clothing
Chemical resistant apron
Safety shoes
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Discard gloves that show tears, pinholes, or signs of wear.
Wear resistant gloves (consult your safety equipment supplier).
- Hygiene measures : Wash hands before breaks and at the end of workday.
When using do not eat or drink.
Ensure that eyewash stations and safety showers are close to the workstation location.
When using do not smoke.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Aqueous solution
- Physical state : liquid
- Colour : yellow
- Odour : No data available
- Odour Threshold : No data available
- pH : 1.66
- Melting point/freezing point : No data available
- Boiling point/boiling range : 212 °F / 100 °C
- Flash point : does not flash
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available

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Flammability (liquids) :
 Flammability (liquids) : Static Accumulating liquid
 Upper explosion limit : No data available
 Lower explosion limit : No data available
 Vapour pressure : No data available
 Relative vapour density : No data available
 Relative density : No data available
 Density : 1.219 g/cm³ (23 °C)

Solubility(ies)
 Water solubility : No data available
 Solubility in other solvents : No data available
 Partition coefficient: n-octanol/water : No data available
 Thermal decomposition : No data available
 Viscosity
 Viscosity, dynamic : No data available
 Viscosity, kinematic : No data available
 Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
 Chemical stability : Stable under recommended storage conditions.
 Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

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Conditions to avoid : temperature extremes
Freezing temperatures.

Incompatible materials : Alkali metals
Alkaline earth metals
Oxidizing agents
steel

Hazardous decomposition products : carbon dioxide and carbon monoxide
Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

PHOSPHONIC ACID DERIVATIVE:

Acute oral toxicity : Assessment: The component/mixture is classified as acute oral toxicity, category 4.

Acute dermal toxicity : LD 50 (Rabbit): 6,000 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks: Causes severe skin burns and eye damage.

Result: Repeated exposure may cause skin dryness or cracking.

Components:

PHOSPHONIC ACID DERIVATIVE:

Result: Slightly irritating to skin

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

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Remarks: May cause irreversible eye damage.

Components:

PHOSPHONIC ACID DERIVATIVE:

Result: Corrosive to eyes

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

Carcinogenicity:

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP


No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1,768 mg/l
 Exposure time: 48 h

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Method: OECD Test Guideline 202
 GLP: no
 Remarks: see user defined free text

Components:

PHOSPHONIC ACID DERIVATIVE:

Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): 368 mg/l
 Exposure time: 96 h

LC 50 (Pimephales promelas (fathead minnow)): 868 mg/l
 Exposure time: 96 h

Persistence and degradability

Components:

No data available

Bioaccumulative potential

Components:

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.

Dispose of in accordance with all applicable local, state and federal regulations.

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Contaminated packaging : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

UN 3265	Corrosive liquid, acidic, organic, n.o.s. ((1-HYDROXYETHYLIDENE)BISP HOSPHONIC ACID)	8		III	
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U.S. DOT - RAIL

UN 3265	Corrosive liquid, acidic, organic, n.o.s. ((1-HYDROXYETHYLIDENE)BISP HOSPHONIC ACID)	8		III	
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U.S. DOT - INLAND WATERWAYS

UN 3265	Corrosive liquid, acidic, organic, n.o.s. ((1-HYDROXYETHYLIDENE)BISP HOSPHONIC ACID)	8		III	
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TRANSPORT CANADA - ROAD

UN 3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. ((1-HYDROXYETHYLIDENE)BISP HOSPHONIC ACID)	8		III	
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TRANSPORT CANADA - RAIL

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UN	3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. ((1-HYDROXYETHYLIDENE)BISPHOSPHONIC ACID)	8	III
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TRANSPORT CANADA - INLAND WATERWAYS

UN	3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. ((1-HYDROXYETHYLIDENE)BISPHOSPHONIC ACID)	8	III
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN	3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. ((1-HYDROXYETHYLIDENE)BISPHOSPHONIC ACID)	8	III
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	3265	Corrosive liquid, acidic, organic, n.o.s. ((1-HYDROXYETHYLIDENE)BISPHOSPHONIC ACID)	8	III
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	3265	Corrosive liquid, acidic, organic, n.o.s. ((1-HYDROXYETHYLIDENE)BISPHOSPHONIC ACID)	8	III
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	3265	LIQUIDO CORROSIVO, ACIDO, ORGANICO, N.E.P. ((1-HYDROXYETHYLIDENE)BISPHOSPHONIC ACID)	8	III
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*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant	no
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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Acute Health Hazard

SARA 313 Component(s) : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL.

AUSTR : On the inventory, or in compliance with the inventory

ENCS : Not in compliance with the inventory

KECL : On the inventory, or in compliance with the inventory

PHIL : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory


Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

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Full text of H-Statements referred to under sections 2 and 3.

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H318	Causes serious eye damage.

Further information

Sources of key data used to compile the Safety Data Sheet
 Key literature references and sources of data
 SOLENIS Internal data
 SOLENIS internal data including own and sponsored test reports
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by the Solenis Environmental Health and Safety Department.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists
 BEI : Biological Exposure Index
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
 FG : Food grade
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
 H-statement : Hazard Statement
 IATA : International Air Transport Association.
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
 ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment

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STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System