

**SAFETY DATA SHEET**

Revision Date: 01/13/2016

Print Date: 1/13/2016

SDS Number: 000000251993

Millsperse™ MS7201 CORROSION INHIBITOR  
 ™ Trademark, Solenis or its subsidiaries or affiliates,  
 registered in various countries  
 859398

Version: 1.1

29 CFR 1910.1200 (OSHA HazCom 2012)

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier**

Trade name : Millsperse™ MS7201  
 CORROSION INHIBITOR  
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**Recommended use of the chemical and restrictions on use**


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

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

Eye irritation : Category 2A


**GHS Label element**

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
 Wash skin thoroughly after handling.  
 Wear eye protection/ face protection.  
**Response:**  
 IF IN EYES: Rinse cautiously with water for several minutes.

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Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/ attention.

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture  
Chemical nature : Defatter

**Hazardous components**

Chemical Name	CAS-No.	Classification	Concentration (%)
INORGANIC SALT	254504001-5294	Eye Irrit. 2A; H319	>= 10.00 - < 15.00
PHOSPHORUS COMPOUND	254504001-6286	Eye Dam. 1; H318 STOT SE 3; H335	>= 1.50 - < 5.00

Trade Secret Composition - conceal identity + concentration

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**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.

If inhaled : If breathed in, move person into fresh air.  
If unconscious place in recovery position and seek medical advice.  
If symptoms persist, call a physician.

In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
If on skin, rinse well with water.

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Wash contaminated clothing before re-use.

In case of eye contact : If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Immediately flush eye(s) with plenty of water.  
 Remove contact lenses.  
 Protect unharmed eye.

If swallowed : Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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 : Excessive levels of phosphorus can cause low blood calcium, with tetany and convulsions. 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)  
 high blood pressure  
 Causes serious eye irritation.

Notes to physician : No hazards which require special first aid measures.

**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

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- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Specific extinguishing methods :  
 Product is compatible with standard fire-fighting agents.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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#### 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 further leakage or spillage if safe to do so.
- 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 : Containers of this material may be hazardous when emptied.  
 Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.
- Do not breathe vapours/dust.  
 Do not smoke.  
 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 : Store in a cool, dry, ventilated area.

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Keep container tightly closed in a dry and well-ventilated place.  
 Electrical installations / working materials must comply with the technological safety standards.

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**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.

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**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.

**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  
 Safety shoes  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
 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.  
 When using do not smoke.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Aqueous solution
Physical state	: liquid
Colour	: light yellow
pH	: 10.25
Boiling point/boiling range	: 208.0 - 212 °F / 97.8 - 100 °C
Flash point	: does not flash
Vapour pressure	: 14 hPa (25 °C)
Density	: 1.470 g/cm <sup>3</sup> (22 °C)

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## 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	: Stable.  Product will not undergo hazardous polymerization.
Conditions to avoid	: Exposure to moisture
Incompatible materials	: Heavy metals Oxidizing agents Strong acids water This product should not be used in conjunction with trimethylol propane or trimethylol propane-derived products. There is a possibility that bicyclic phosphates or phosphites can be produced as a result of the thermal decomposition of this product in combination with trimethylol propane, trimethylol propane-derived products or their corresponding trimethylol propane alkane homologs. Bicyclic phosphates and phosphites are a class of materials with acute neurotoxic

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properties which produce characteristic convulsive seizures in test animals.

**SECTION 11. TOXICOLOGICAL INFORMATION**

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

**Acute toxicity**

Not classified based on available information.

**Components:**

**INORGANIC SALT:**

Acute oral toxicity : LD L0 (Rat): 4,640 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): > 4,640 mg/kg

**PHOSPHORUS COMPOUND:**

Acute oral toxicity : LD50 (Rat): 4,260 mg/kg

Acute inhalation toxicity : LC 50 (Rat): > 0.83 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: Not classified as acutely toxic by inhalation under GHS.

Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD 50 (Rabbit): > 7,970 mg/kg  
 Test substance: (as aqueous solution)

**Skin corrosion/irritation**

Not classified based on available information.


**Product:**

Remarks: May cause skin irritation in susceptible persons.

**Components:**

**INORGANIC SALT:**

Result: Mildly irritating to skin

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**PHOSPHORUS COMPOUND:**

Species: reconstructed human epidermis (RhE)

Method: OECD Test Guideline 439

Result: Not irritating to skin

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

**Components:**

INORGANIC SALT:

Result: Irritating to eyes

**PHOSPHORUS COMPOUND:**

Result: Corrosive to eyes

**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

**Components:**

PHOSPHORUS COMPOUND:

Test Type: Local lymph node assay

Species: Mouse

Assessment: Did not cause sensitisation on laboratory animals.

Method: OECD Test Guideline 429

**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.

**Components:**

PHOSPHORUS COMPOUND:

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Assessment: May cause respiratory irritation.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information**

**Product:**



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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)): 1,649 mg/l  
 Exposure time: 48 h  
 Method: OECD Test Guideline 202  
 GLP: no  
 Remarks: see user defined free text

**PHOSPHORUS COMPOUND:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
 Exposure time: 96 h  
 Test Type: semi-static test  
 Method: OECD Test Guideline 203  
 GLP: yes  
 Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (Daphnia magna)): > 100 mg/l  
 Exposure time: 48 h  
 Test Type: static test  
 Method: OECD Test Guideline 202  
 GLP: yes  
 Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
 End point: Growth inhibition

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Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l  
End point: Growth inhibition  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Information given is based on data obtained from similar substances.

**Persistence and degradability**  
**PHOSPHORUS COMPOUND:**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

General advice : Do not dispose of waste into sewer.  
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.

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.

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**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**

Not dangerous goods
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**U.S. DOT - RAIL**

Not dangerous goods
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**U.S. DOT - INLAND WATERWAYS**

Not dangerous goods
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**TRANSPORT CANADA - ROAD**

Not dangerous goods
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**TRANSPORT CANADA - RAIL**

Not dangerous goods
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**TRANSPORT CANADA - INLAND WATERWAYS**

Not dangerous goods
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**INTERNATIONAL MARITIME DANGEROUS GOODS**

Not dangerous goods
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO**


Not dangerous goods
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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER**

Not dangerous goods
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**

Not dangerous goods
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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)SARA 313** : 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 : On the inventory, or 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)

**Registration: Trade Secret**

Chemical Name	Identification number
INORGANIC SALT	254504001-5294
PHOSPHORUS COMPOUND	254504001-6286

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**SECTION 16. OTHER INFORMATION****Further information**

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

H303 May be harmful if swallowed.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**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

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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  
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