

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

1 Identification

- **Product identifier**
- **Trade name:** Scale Free 4200
- **Product code:** SF4200
- **Recommended use and restriction on use**
- **Recommended use:** Water treatment
- **Restrictions on use:** See Sections 8 and 10 for further information.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Scale Free Company, Inc.
16420 West Hardy Rd.
Houston, TX 77060
Phone: (281) 873-5555
- **Emergency telephone number:**
ChemTel Inc.
+1 (813) 676-1670

2 Hazard(s) identification

- **Classification of the substance or mixture**
Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1C H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS05

- **Signal word:** Danger
- **Hazard statements:**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
- **Precautionary statements:**
P260 Do not breathe mist/vapors/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection.
P234 Keep only in original container.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 1)

P363 Wash contaminated clothing before reuse.
 P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
 P390 Absorb spillage to prevent material damage.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

	Trade Secret	⚠ Skin Corr. 1C, H314	15-45%
6419-19-8	nitrilotrimethylenetris(phosphonic acid)	⚠ Met. Corr.1, H290 ⚠ Eye Irrit. 2A, H319	<30%
7664-38-2	phosphoric acid	⚠ Skin Corr. 1B, H314	3-10%
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid	⚠ Met. Corr.1, H290 ⚠ Eye Irrit. 2A, H319	1-3%

· **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
 For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **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.
 Seek immediate medical help for blistering or open wounds.

· **After eye contact:**

Protect unharmed eye.
 Remove contact lenses if worn.
 Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

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

· **Most important symptoms and effects, both acute and delayed:**

Coughing
 Gastric or intestinal disorders
 Nausea in case of ingestion.
 Strong caustic effect on skin and mucous membranes.
 Gastric or intestinal disorders when ingested.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 2)

- **Danger:**
 - Causes serious eye damage.
 - Corrosive injury to skin
 - Danger of gastric perforation.
- **Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - The product is not flammable.
 - Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
 - Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
 - Wear protective equipment. Keep unprotected persons away.
 - Ensure adequate ventilation.
 - Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:**
 - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up:**
 - Use limestone to neutralize and absorb spill.
 - Send for recovery or disposal in suitable receptacles.
- **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

- **Handling**
- **Precautions for safe handling:**
 - Use only in well ventilated areas.
 - Avoid splashes or spray in enclosed areas.
 - Open and handle receptacle with care.
 - Avoid contact with the eyes and skin.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 3)

- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store only in the original receptacle.
Unsuitable material for receptacle: aluminium.
Unsuitable material for receptacle: steel.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with alkalis (caustic solutions).
Store away from metals.
Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s):** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

6419-19-8 nitilotrimethylenetris(phosphonic acid)

WEEL (USA)	Long-term value: 10 mg/m ³
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7664-38-2 phosphoric acid

PEL (USA)	Long-term value: 1 mg/m ³
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REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
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TLV (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
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EL (Canada)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
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EV (Canada)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
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LMPE (Mexico)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³
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37971-36-1 2-phosphonobutane-1,2,4-tricarboxylic acid

WEEL (USA)	Long-term value: 10 mg/m ³ (H)
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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Immediately remove all soiled and contaminated clothing.

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 4)

Wash hands before breaks and at the end of work.

- **Engineering controls:** No relevant information available.
- **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device when aerosol or mist is formed.
For spills, respiratory protection may be advisable.
- **Protection of hands:**



Protective gloves

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

- **Material of gloves**
Nitrile rubber, NBR
Neoprene gloves
- **Eye protection:**



Safety glasses

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**
No relevant information available.
- **Risk management measures** See Section 7 for additional information.

9 Physical and chemical properties

· Information on basic physical and chemical properties

- **Appearance:**
 - **Form:** Liquid
 - **Color:** Light blue
- **Odor:** Disinfectant
- **Odor threshold:** Not determined.
- **pH-value:** 1.5 - 6.5
- **Melting point/Melting range:** 0 °C (32 °F)
- **Boiling point/Boiling range:** 100 °C (212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits**
 - **Lower:** Not determined.

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 5)

Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	0.04 mmHg
· Density at 20 °C (68 °F):	1.1 - 1.2 g/cm ³ (9.18 - 10.014 lbs/gal)
· Relative density:	1.06-1.10
· Vapor density at 20 °C (68 °F):	> 1 g/cm ³ (> 8.345 lbs/gal) (air= 1)
· Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions:**
Reacts with alkali (lyes).
Reacts with strong oxidizing agents.
Corrosive action on metals.
- **Conditions to avoid:** Excessive heat.
- **Incompatible materials:**
Alkalis
Oxidizers
- **Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Phosphorus oxides (e.g. P₂O₅)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Caustic effect on skin and mucous membranes.
- **On the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 6)

- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer):
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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 route(s) of exposure:**

- Ingestion.

- Inhalation.

- Eye contact.

- Skin contact.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **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.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity** Large quantities will cause harm to aquatic life

- **Persistence and degradability** No relevant information available.

- **Bioaccumulative potential:** No relevant information available.

- **Mobility in soil:** No relevant information available.

- **Ecotoxicological effects:**

- **Remark:** After neutralization a reduction of the harming action may be recognized

- **Additional ecological information**

- **General notes:**

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

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.

- **Other adverse effects:** No relevant information available.

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 7)

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

Dilute concentrate with water and neutralize afterwards with suitable material (lime or chalk). The formed salts are inert and pose little hazard.

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 packagings**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- DOT, ADR, IMDG, IATA

UN3265

- **UN proper shipping name**

- DOT, IATA

Corrosive liquid, acidic, organic, n.o.s. (phosphonic acid)

- ADR, IMDG

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (PHOSPHONIC ACID)

- **Transport hazard class(es)**

- DOT



- Class

8 Corrosive substances

- Label

8

- ADR



- Class

8 (C3) Corrosive substances

- Label

8

- IMDG, IATA



- Class

8 Corrosive substances

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 8)

· Label	8
· Packing group · DOT, ADR, IMDG, IATA	III
· Environmental hazards · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups	Warning: Corrosive substances 80 F-A,S-B Acids
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

· Transport/Additional information:

· DOT



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· ADR



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· IMDG



Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· IATA



Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each / 1 L net.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

(Cont'd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 9)

· Section 304 (emergency release notification):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)
· Chemicals known to cause cancer:

Present in trace quantities.

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.

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.

· **Date of preparation / last revision** 10/07/2016 / -

· **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

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

LDLo: Lowest Lethal Dose Observed

(Cont'd. on page 11)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: 10/07/2016

Revision: 10/07/2016

Trade name: Scale Free 4200

(Cont'd. of page 10)

Met. Corr. 1: Corrosive to metals – Category 1
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

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

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

Safety Data Sheets, Individual Manufacturers

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