

## Safety Data Sheet

acc. to OSHA HCS

Printing date 03/01/2017

Reviewed on 03/01/2017

### 1 Identification

- **Product identifier**
- **Trade name: Ferrol N**
- **Application of the substance / the mixture**  
Dry-cleaning  
Spotting agent, stain remover
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SEITZ GmbH  
Gutenbergstrasse 1 - 3  
65830 Kriftel / Germany  
Tel. + 49(0) 6192-9948-0  
Fax + 49(0) 6192-9948-99  
order@seitz24.com  
www.seitz24.com
- **Information department:**  
CHEM-TEL Inc.  
1305 North Florida Ave  
Tampa Florida 33602
- **Emergency telephone number:** 1-800-255-3924

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Skin Corr. 1B 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-determining components of labeling:**  
methyl dihydrogen phosphate  
oxalic acid  
phosphoric acid
- **Hazard statements**  
H314 Causes severe skin burns and eye damage.
- **Precautionary statements**  
P260 Do not breathe mist/vapours/spray.  
P280 Wear protective gloves / eye protection.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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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.

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **CAS-No. Components:**

CAS: 812-00-0	methyl dihydrogen phosphate	< 5%
CAS: 77-92-9	citric acid	< 2.5%
CAS: 144-62-7	oxalic acid	< 2.5%
CAS: 7664-38-2	phosphoric acid	< 2.5%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

### 4 First-aid measures

- **Description of first aid measures**
- **General information**  
Remove casualties from exposure.  
Keep unprotected persons away.  
Immediately remove any clothing soiled by the product.
- **After inhalation**  
Supply fresh air; consult doctor in case of complaints.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact**  
Immediately rinse with water.  
Seek medical treatment.
- **After eye contact**  
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.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed**  
If swallowed or in case of vomiting, danger of entering the lungs
- **Indication of any immediate medical attention and special treatment needed**  
Symptomatic treatment

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** No further relevant information available.

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- **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:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Avoid contact with eyes and skin.  
Ensure adequate ventilation
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Use neutralizing agent.  
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**  
Keep away from heat and direct sunlight.  
Avoid contact with eyes and skin.  
Ensure good ventilation/exhaustion at the workplace.
- **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.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from bases.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from frost.  
Time of storage: max. 24 month
- **Specific end use(s)** Dry-cleaning

### 8 Exposure controls/personal protection

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

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- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

<b>CAS: 7664-38-2 phosphoric acid</b>	
PEL (USA)	Long-term value: 1 mg/m <sup>3</sup>
REL (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
TLV (USA)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EL (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
EV (Canada)	Short-term value: 3 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>

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

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Do not eat, drink, smoke or sniff while working.

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.

Do not inhale gases / fumes / aerosols.

- **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation (exceeding the workplace limit values, formation of aerosols).

- **Protection of hands:**

Acid resistant gloves

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

- **Material of gloves**

Nitrile rubber, NBR

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 can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Tightly sealed goggles.

- **Body protection:** Acid resistant protective clothing

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### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Color:	Yellow-brown
· Odor:	Product specific
· Odor threshold:	No further relevant information available.

· pH-value at 20 °C (68 °F): 1.2

· **Change in condition**

Melting point/Melting range:	not applicable
Boiling point/Boiling range:	undetermined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** No further relevant information available.

· **Ignition temperature:** No further relevant information available.

· **Decomposition temperature:** No further relevant information available.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	No further relevant information available.
Upper:	No further relevant information available.

· **Oxidizing properties** No further relevant information available.

· **Vapor pressure:** No further relevant information available.

· **Density at 20 °C (68 °F):** ~ 1.05 g/cm<sup>3</sup> (~ 8.762 lbs/gal) (ISO 2811)

· **Relative density** No further relevant information available.

· **Vapor density** No further relevant information available.

· **Evaporation rate** No further relevant information available.

· **Solubility in / Miscibility with**

**Water:** Fully miscible

· **Partition coefficient (n-octanol/water):** No further relevant information available.

· **Viscosity:**

dynamic:	No further relevant information available.
kinematic:	No further relevant information available.

· **Other information** No further relevant information available.

### 10 Stability and reactivity

· **Reactivity** No further relevant information available.

· **Chemical stability**

Stable under normal ambient conditions.

No decomposition if used and stored according to specifications.

· **Possibility of hazardous reactions** Reacts with alkali (lyes)

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** Lyes

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- **Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**CAS: 77-92-9 citric acid**

Oral	LD50	3000 mg/kg (rat)
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**CAS: 144-62-7 oxalic acid**

Oral	LD50	375 mg/kg (rat)
------	------	-----------------

Dermal	LD50	1100 mg/kg (ATE)
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**CAS: 7664-38-2 phosphoric acid**

Oral	LD50	2600 mg/kg (rat)
------	------	------------------

Dermal	LD50	2740 mg/kg (rabbit)
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- **on the skin:** Causes severe skin burns and eye damage.
- **on the eye:** Causes serious eye damage.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

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

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

**CAS: 7664-38-2 phosphoric acid**

EC50	> 100 mg/l (Aquatic invertebrates) (48 h; Daphnia magna; OECD 202)
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LC50	138 mg/l (Fish) (96 h; Gambusia affinis)
------	--

NOEC	100 mg/l (Aquatic plants, algae) (72 h; Desmodesmus subspicatus; OECD 201)
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- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

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

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- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Contaminated adsorbent, soil, water must be disposed of in a permitted hazardous waste management facility. Recovered products may be reused, reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, The Clean Water Act, RCRA, as well as applicable Federal, State, and local Regulations regarding disposal.

### 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	<p style="margin-left: 20px;">UN1760</p>
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	<p style="margin-left: 20px;">Corrosive liquids, n.o.s. (methyl dihydrogen phosphate, Phosphoric acid solution) 1760 Corrosive liquids, n.o.s. (methyl dihydrogen phosphate, Phosphoric acid solution) CORROSIVE LIQUID, N.O.S. (methyl dihydrogen phosphate, PHOSPHORIC ACID, SOLUTION)</p>
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>	<div style="text-align: center;">  </div> <p style="margin-left: 20px;">8 Corrosive substances</p>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p style="margin-left: 20px;">8</p>
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> </ul>	<div style="text-align: center;">  </div> <p style="margin-left: 20px;">8 (C9) Corrosive substances</p>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	<p style="margin-left: 20px;">8</p>
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>	<div style="text-align: center;">  </div> <p style="margin-left: 20px;">Void</p>
<ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>	<p style="margin-left: 20px;">Void</p>

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· <b>Label</b>	8
· <b>IATA</b>	
	
· <b>Class</b>	8 Corrosive substances
· <b>Label</b>	8
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Danger code (Kemler):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E 1
· <b>UN "Model Regulation":</b>	UN 1760 CORROSIVE LIQUIDS, N.O.S. (METHYL DIHYDROGEN PHOSPHATE, PHOSPHORIC ACID SOLUTION), 8, III

### 15 Regulatory information

· **Canadian substance lists**

· **Canadian domestic substance list (DSL):**

All ingredients are listed.

· **Canadian ingredient disclosure list (limit 0.1%):**

CAS: 144-62-7 | oxalic acid

· **Canadian ingredient disclosure list (limit 1%):**

CAS: 77-92-9 | citric acid

CAS: 7664-38-2 | phosphoric acid

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- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

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

CAS: 7664-38-2 | phosphoric acid

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

All ingredients are listed.

- **Proposition 65**

- **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.

- **New Jersey Right-to-Know List:**

CAS: 144-62-7 | oxalic acid

CAS: 7664-38-2 | phosphoric acid

- **New Jersey Special Hazardous Substance List:**

CAS: 144-62-7 | oxalic acid

CO

CAS: 7664-38-2 | phosphoric acid

CO

- **Pennsylvania Right-to-Know List:**

CAS: 144-62-7 | oxalic acid

CAS: 7664-38-2 | phosphoric acid

- **Pennsylvania Special Hazardous Substance List:**

CAS: 7664-38-2 | phosphoric acid

E

- **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.

- **National regulations**

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

- **Please note:**

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyers responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.

- **Other information:** The product has been designed for professional use only.

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### 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** 03/01/2017 / 3

· **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

ACGIH: American Conference of Governmental Industrial Hygienists

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

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· \* **Data compared to the previous version altered.**