

**Okemcoat® F-1**

Version 0.1

Revision Date 05/27/2015

Print Date 07/21/2015

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Okemcoat® F-1

Substance number : REL\_4663

Chemical usage : Surface Pre-treatment material

**Manufacturer or supplier's details**

Company : Chemetall US, Inc.

Address : 675 Central Avenue  
New Providence NJ 07974

Telephone : (800) 526-4473

Telefax : (908) 464-4658

Emergency telephone no : CHEMTREC - 800-424-9300, 1-703-527-3887 (International)

**SECTION 2. HAZARDS IDENTIFICATION****Emergency Overview**

Appearance	liquid
Colour	green
Odour	acid
Hazard Summary	Strong Oxidant! Harmful if swallowed. Harmful by inhalation. Causes severe burns. May cause cancer.

**GHS Classification**

Acute toxicity (Oral) : Category 4

Acute toxicity (Dermal) : Category 3

Skin corrosion : Category 1A

Serious eye damage : Category 1

Carcinogenicity : Category 1A

**GHS Label element**

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Hazard pictograms

:



Signal word

: Danger

Hazard statements

 : Harmful if swallowed.  
 Toxic in contact with skin.  
 Causes severe skin burns and eye damage.  
 May cause cancer.

Precautionary statements

 : **Prevention:**  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Wash skin thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 Use personal protective equipment as required.  
**Response:**  
 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.  
 IF exposed or concerned: Get medical advice/ attention.  
 Wash contaminated clothing before reuse.  
**Storage:**  
 Store locked up.  
**Disposal:**  
 Dispose of contents/ container to an approved waste disposal plant.

**Potential Health Effects**

Inhalation : yes

Skin : yes

Ingestion : yes

Aggravated Medical Condition : None known.

**Carcinogenicity:**

IARC

Group 1: Carcinogenic to humans

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	Chromic (VI) Acid	1333-82-0
<b>ACGIH</b>	Confirmed human carcinogen	
	Chromic (VI) Acid	1333-82-0
<b>OSHA</b>	OSHA specifically regulated carcinogen	
	Chromic (VI) Acid	1333-82-0
<b>NTP</b>	Known to be human carcinogen	
	Chromic (VI) Acid	1333-82-0

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

Substance / Mixture :

**Hazardous components**

Component	CAS-No.	Weight percent
Chromium (III) phosphate	7789-04-0	10 - 20
Phosphoric acid	7664-38-2	10 - 20
Chromic (VI) Acid	1333-82-0	10 - 20

Unidentified ingredients are considered not hazardous under Federal Hazard Communication Standard (29CFR 1910.1200).

Specific chemical identity of composition has been withheld as a trade secret.

Exact percentage of composition has been withheld as a trade secret.

**SECTION 4. FIRST AID MEASURES**

If inhaled	: Move to fresh air. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact	: Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician if irritation develops or persists.
In case of eye contact	: Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention immediately
If swallowed	: Rinse mouth. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately

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**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)  
 Dry chemical  
 Foam  
 Water spray
- Further information : Use water spray to cool unopened containers.
- 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 : Ensure adequate ventilation.
- Methods and materials for containment and cleaning up : Ventilate area.  
 Neutralize with lime milk or soda and flush with plenty of water.  
 Clean up with inert absorbant material.  
 Keep in suitable, closed containers for disposal.  
 Flush with plenty of water.  
 Do not flush into surface water or sanitary sewer system.
- Additional advice : Never return spills in original containers for re-use.

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Unscrew closure slowly. Allow all pressure to escape through threads before removing closure  
 Add this product to surface of solution slowly to avoid spattering  
 Do not add large amounts of product to solution at any one time.  
 Use only with adequate ventilation.
- Conditions for safe storage : Keep containers dry and tightly closed to avoid moisture absorption and contamination.  
 Store indoors in a cool, well-ventilated place  
 Keep container out of sun and away from heat.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**
**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

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Chromium (III) phosphate	7789-04-0	TWA	0.500000 mg/m3	OSHA Z-1
		TWA	0.500000 mg/m3	ACGIH
		TWA	0.500000 mg/m3	NIOSH REL
Phosphoric acid	7664-38-2	TWA	1.000000 mg/m3	ACGIH
		STEL	3.000000 mg/m3	ACGIH
		TWA	1.000000 mg/m3	NIOSH REL
		ST	3.000000 mg/m3	NIOSH REL
		TWA	1.000000 mg/m3	OSHA Z-1
		TWA	1.000000 mg/m3	OSHA P0
		STEL	3.000000 mg/m3	OSHA P0
Chromic (VI) Acid	1333-82-0	TWA	0.001000 mg/m3	NIOSH REL
		TWA	0.050000 mg/m3	ACGIH
		PEL	0.005000 mg/m3	OSHA CARC

**Biological occupational exposure limits**

Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Chromic (VI) Acid	1333-82-0, 1333-82-0	Total chromium	Urine	End of shift at end of workweek	25.0000 µg/l	ACGIH BEI
Chromic (VI) Acid		Total chromium	Urine	Increase during shift	10.0000 µg/l	ACGIH BEI

**Personal protective equipment**

- Respiratory protection : If the occupational exposure limits cannot be met, suitable respirator equipment shall be worn.
- Hand protection  
Remarks : Impervious gloves
- Eye protection : Chemical resistant goggles must be worn.  
Face-shield
- Skin and body protection : Rubber or plastic apron
- Hygiene measures : Avoid contact with skin, eyes and clothing.  
Wear suitable gloves and eye/face protection.  
Wear suitable protective clothing.  
Wash hands before breaks and immediately after handling the product.  
Provide adequate ventilation.  
Do not inhale fumes.  
Keep away from food and drink.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

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Colour	: green
Odour	: acrid
pH	: < 2.0
Freezing point	: -10 °C
Boiling point/boiling range	: no data available
Flash point	: does not flash
Evaporation rate	: 1 Water = 1
Upper explosion limit	: Not applicable.
Lower explosion limit	: Not applicable.
Vapour pressure	: no data available
Relative density	: 1.426
Bulk density	: 11.9 lb/gal
Solubility(ies)	
Water solubility	: completely soluble
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity, dynamic	: No data available

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**SECTION 10. STABILITY AND REACTIVITY**

Conditions to avoid	: Avoid letting the product become dry. Direct sources of heat.
Incompatible materials	: Bases Reducing agents Combustible material Organic materials Warning! Do not use together with other products. May release dangerous gases (chlorine).
Hazardous decomposition products	: Chromium oxides Oxides of phosphorus Carbon oxides

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

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**Product:**

Acute oral toxicity : Acute toxicity estimate : 606.020000 mg/kg  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : 432.760000 mg/kg  
Method: Calculation method

**Components:****Phosphoric acid:**

Acute oral toxicity : LD50 rat: 3,500.000000 mg/kg

Acute dermal toxicity : LD50 rabbit: 2,740.000000 mg/kg

**Chromic (VI) Acid:**

Acute oral toxicity : LD50 rat: 80.000000 mg/kg

LD50 mouse: 127.000000 mg/kg

Acute inhalation toxicity : LC50 rat: 217.000000 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 rabbit, male and female: 57.000000 mg/kg

**Skin corrosion/irritation****Components:****Phosphoric acid:**

Result: Corrosive

**Chromic (VI) Acid:**

Result: Corrosive

**Serious eye damage/eye irritation****Components:****Phosphoric acid:**

Result: Risk of serious damage to eyes.

**Chromic (VI) Acid:**

Result: Corrosive

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

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**Reproductive toxicity**

no data available

**STOT - single exposure**

no data available

**STOT - repeated exposure**

no data available

**Aspiration toxicity**

no data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

no data available

**Bioaccumulative potential****Product:**Partition coefficient: n-  
octanol/water : Remarks: no data available**Other adverse effects**

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Refer to all federal, provincial, state and local regulation prior to disposition of container and unused contents by reuse, recycle or disposal.

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**SECTION 14. TRANSPORT INFORMATION****International regulation****Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations**

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**SECTION 15. REGULATORY INFORMATION****TSCA Status**

: All components of this material comply with US TSCA requirements.



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**OSHA Hazards** : Carcinogen, Toxic by ingestion, Highly toxic by skin absorption, Corrosive to skin

**WHMIS Classification** : E: Corrosive Material  
D2A: Very Toxic Material Causing Other Toxic Effects

**EPCRA - Emergency Planning and Community Right-to-Know Act**
**CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phosphoric acid	7664-38-2	5,000	34,530
Nitric acid	7697-37-2	1,000	

**SARA 311/312 Hazards** : Chronic Health Hazard  
Acute Health Hazard

**SARA 302** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
Nitric acid 7697-37-2

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
Chromium (III) phosphate 7789-04-0  
Chromic (VI) Acid 1333-82-0

**US State Regulations**
**Massachusetts Right To Know**

Phosphoric acid 7664-38-2  
Chromic (VI) Acid 1333-82-0  
Nitric acid 7697-37-2

**Pennsylvania Right To Know**

water 7732-18-5  
Chromium (III) phosphate 7789-04-0  
Phosphoric acid 7664-38-2  
Chromic (VI) Acid 1333-82-0  
Nitric acid 7697-37-2

**New Jersey Right To Know**

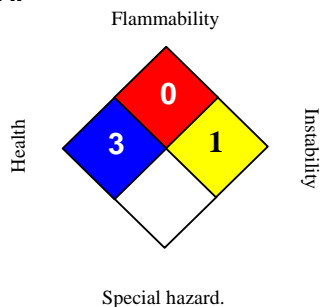
water 7732-18-5  
Chromium (III) phosphate 7789-04-0  
Phosphoric acid 7664-38-2  
Chromic (VI) Acid 1333-82-0

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**NFPA:**

Corrosive Acid

**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>1</b>

0 = not significant, 1 =Slight,  
 2 = Moderate, 3 = High  
 4 = Extreme, \* = Chronic

 Splash Goggles, Gloves, Apron, Dust  
 and Vapour Respirator

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

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Chemetall US, Inc. warrants that the products described herein will conform with its published specifications.

The products supplied by Chemetall and information related to them are intended for use by buyers having necessary industrial skill and knowledge. Buyers should undertake sufficient verification and testing to determine the suitability of the Chemetall materials for their own particular purpose. Since buyer's conditions of use of products are beyond Chemetall's control, Chemetall does not warrant any recommendations and information for the use of such products. CHEMETALL DISCLAIMS ALL OTHER WARRANTIES INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH THE USE OF ITS PRODUCTS.