

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 |
| ACGIH | Confirmed human carcinogen | |
| | Chromic (VI) Acid | 1333-82-0 |
| OSHA | OSHA specifically regulated carcinogen | |
| | Chromic (VI) Acid | 1333-82-0 |
| NTP | 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 (CO₂)
 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 |

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 |

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

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

no data available

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

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.

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

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

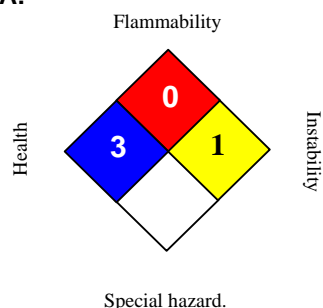
water 7732-18-5
Chromium (III) phosphate 7789-04-0
Phosphoric acid 7664-38-2
Chromic (VI) Acid 1333-82-0

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NFPA:

Corrosive Acid

HMIS III:

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 1 |

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

Splash Goggles, Gloves, Apron, Dust
 and Vapour Respirator

SECTION 16. OTHER INFORMATION
Further information

Version 1.0

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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.