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1. Identification

Product identifier used on the label

Okemcoat F2

Recommended use of the chemical and restriction on use

Recommended use*: Surface treatment agent; Restricted to professional users. Unsuitable for use: See section 15 for more information.

Details of the supplier of the safety data sheet

Company:

Chemetall U.S., Inc. 675 Central Avenue New Providence, NJ 07974 – USA +1 800 526-4473 sds.na-chemetall@basf.com

Emergency telephone number

Telephone: 800-424-9300, 1-703-527-3887

Other means of identification

Chemical family: aqueous solution, inorganic

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Acute Tox. 4 (dermal) Acute toxicity
Acute Tox. 4 (Inhalation - vapour) Acute toxicity

Skin Corr./Irrit. 1 Skin corrosion/irritation

Eye Dam./Irrit. 1 Serious eye damage/eye irritation

Resp. Sens.1Respiratory sensitizationSkin Sens.1Skin sensitizationMuta.1Germ cell mutagenicityCarc.1Carcinogenicity

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Repr. 2 (fertility) Reproductive toxicity

STOT RE 1 Specific target organ toxicity — repeated

exposure

Aquatic Acute 1 Hazardous to the aquatic environment - acute Aquatic Chronic 1 Hazardous to the aquatic environment - chronic

Met. Corr. 1 Corrosive to metals

Label elements

Pictogram:



Signal Word: Danger

Hazard Statement:

H290 May be corrosive to metals. H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if

inhaled.

H340 May cause genetic defects.

H350 May cause cancer.

H361 Suspected of damaging fertility.

H372 Causes damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves, protective clothing and eye protection or face

protection.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P272 Contaminated work clothing should not be allowed out of the workplace.

P260 Do not breathe dust or mist.

P270 Do not eat, drink or smoke when using this product.

P202 Do not handle until all safety precautions have been read and

understood.

P234 Keep only in original packaging.

P264 Wash contaminated body parts thoroughly after handling.
P284 In case of inadequate ventilation wear respiratory protection.

P201 Obtain special instructions before use.

Precautionary Statements (Response):

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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.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P391	Collect spillage.
P314	Get medical advice/attention if you feel unwell.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P303 + P361 + P353	IF ON SKIN (or hair): Remove or Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER or doctor/physician.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.

Precautionary Statements (Storage):

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste

collection point.

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 12 %

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Chromium trioxide

CAS Number: 1333-82-0 Content (W/W): >= 1.0 - < 3.0% Synonym: Chromium trioxide

Silicon dioxide

CAS Number: 7631-86-9 Content (W/W): >= 1.0 - < 3.0% Synonym: Silicon dioxide

Nitric acid

CAS Number: 7697-37-2 Content (W/W): >= 1.0 - < 3.0% Synonym: Nitric acid; Aqua fortis

Phosphoric acid, chromium(3+) salt (1:1)

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> CAS Number: 7789-04-0 Content (W/W): >= 5.0 - < 7.0% Synonym: No data available.

Dichromium tris(chromate)

CAS Number: 24613-89-6 Content (W/W): >= 3.0 - < 5.0%

Synonym: Authorisation List (Annex XIV of the REACH Regulation); Sunset date

22January 2019

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Remove affected person from danger area. Keep warm, calm and covered up. Immediately remove contaminated clothing. Never give anything by mouth to an unconscious person. In case of intoxication, call a poison control center or physician for treatment advice, taking the packaging or the label of the product. Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

If inhaled:

Immediate medical attention required. Remove the affected individual into fresh air and keep the person calm. If breathing is irregular or stopped, administer artificial respiration.

If on skin:

Flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing immediately and clean before re-use or dispose it if necessary. Immediate medical attention required.

If in eyes:

Remove contact lenses, if present. Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist. Immediate medical attention required.

If swallowed:

Summon medical aid without delay. Do not induce vomiting due to aspiration hazard. Rinse mouth immediately with water. Keep at rest.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Information on: Chromium trioxide

Symptoms: Overexposure may cause:, vomiting, abdominal cramps, dyspnea, nephritis, shock, nausea, coughing

Information on: Nitric acid

Symptoms: Overexposure may cause:, corneal injury, skin corrosion, severe pain, coughing, respiratory disorders, dyspnea, nausea, headache, vomiting, dizziness, diarrhea, abdominal cramps

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Information on: Phosphoric acid, chromium(3+) salt (1:1)

Symptoms: Overexposure may cause:, Eye irritation, skin irritation, erythema, nausea, headache,

vomiting, dizziness, diarrhea, abdominal cramps

Hazards: irritation of respiratory tract skin corrosion May cause severe burns of the mouth and throat if orally ingested, as well as a danger of perforation of the oesophagus and the stomach.

Indication of any immediate medical attention and special treatment needed

Note to physician

Antidote: No known specific antidote.

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

carbon dioxide, alcohol-resistant foam, dry powder, water spray

Unsuitable extinguishing media for safety reasons:

water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

chromium oxides

When dry, the substance/product is oxidising. Hazardous decomposition products formed under fire conditions.

Advice for fire-fighters

Protective equipment for fire-fighting:

Appropriate breathing apparatus may be required.

Further information:

Cool closed containers in the vicinity of the source of fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Avoid breathing vapours. Keep away from sources of ignition. Ensure adequate ventilation. Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

Environmental precautions

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the Environment Agency.

Methods and material for containment and cleaning up

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Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for diposal according with the waste regulations (see section 13). Clean preferably with a detergent; avoid the use of solvents. Ensure adequate ventilation.

7. Handling and Storage

Precautions for safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not return residues to the storage containers. Smoking, eating and drinking are forbidden in application area. For personal protection see section 8. Comply with the health and safety at work laws. Avoid inhalation of vapour and spray mist. The workplace should be equipped with an emergency shower and eye-rinsing facility. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame. The relevant fire protection measures should be noted. Dried product promotes spreading of fire.

Conditions for safe storage, including any incompatibilities

Segregate from combustible materials. Segregate from bases.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Polyethylenetherephtalate (PET), Polypropylene (PP)

Further information on storage conditions: The entrance to storage rooms is to be granted only to appropriately trained personnel. Keep only in the original container. Keep container tightly closed in a cool, well-ventilated place. Avoid direct sunlight, avoid contact with metals

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Chromium trioxide	OSHA PEL	TWA value 0.005 mg/m3; OSHA Action level 0.0025 mg/m3;
	ACGIH TLV	Skin Designation Inhalable fraction (chromium(VI));
		The substance can be absorbed through the skin. TWA value 0.0002 mg/m3 Inhalable fraction (chromium(VI)); STEL value 0.0005 mg/m3 Inhalable fraction (chromium(VI));
Nitric acid	OSHA PEL	PEL 2 ppm 5 mg/m3; STEL value 4 ppm 10 mg/m3; TWA value 2 ppm 5 mg/m3;
	ACGIH TLV	TWA value 2 ppm; STEL value 4 ppm;
Phosphoric acid, chromium(3+) salt (1:1)	OSHA PEL	PEL 0.5 mg/m3 (Chromium (Cr)); TWA value 1 mg/m3;
onomanior) sait (1.1)	ACGIH TLV	TWA value 0.003 mg/m3 Inhalable fraction (chromium(III));
Dichromium tris(chromate)	OSHA PEL	CLV 0.1 mg/m3 (chromium trioxide (CrO3)); CLV 0.1 mg/m3 ; OSHA Action level 0.0025 mg/m3 ; TWA value 0.005 mg/m3 ;

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ACGIH TLV

TWA value 0.0002 mg/m3 Inhalable fraction (chromium(VI)); STEL value 0.0005 mg/m3 Inhalable fraction (chromium(VI)); Skin Designation Inhalable fraction (chromium(VI)); The substance can be absorbed through the skin.

Advice on system design:

Use only in well-ventilated areas.

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate.

Hand protection:

fluoroelastomer (Viton), Chemical resistant protective gloves (EN 374), Further information on penetration time is available from the manufacturer of the glove., The gloves should be replaced immediately in case of damage or signs of wear. It is recommended to use preventative skin protection (skin cream)., Use suitable protective gloves made of nitrile rubber or butyl rubber. Please observe the glove manufacturer's instructions on permeability and ruptur times as well as the specific workplace conditions.

Eye protection:

Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:

Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

General safety and hygiene measures:

Do not breathe vapour/spray. Eye wash fountains and safety showers must be easily accessible. Persons with a history of allergies, asthma, recurrent or chronic respiratory disease must not be employed in any process in which this product is used. Persons using this product should undergo lung function tests at regular intervals. Avoid contact with the skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove contaminated clothing immediately and dispose of safely. Hands and/or face should be washed before breaks and at the end of the shift. Keep separated from food stuffs and feed stocks.

9. Physical and Chemical Properties

Form: liquid
Odour: acidic
Colour: green
pH value: < 2.5
(20 °C)

(20 °C) (undiluted)

Freezing point: -8 °C

onset of boiling:

Flash point:

Flammability:

Lower explosion limit:

Upper explosion limit:

Autoignition:

vapour pressure:

not determined

not applicable

not determined

not available

not determined

(20 °C)

not determined

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Density: 1.134 g/cm3

(20 °C)

Partitioning coefficient n-

octanol/water (log Pow):

No data available.

Solubility in water: fully soluble Miscibility with water: miscible

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effect on metals.

Oxidizing properties: not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with metals, with evolution of hydrogen. Dried product promotes spreading of fire.

Conditions to avoid

Avoid direct sunlight. Avoid drying-out. avoid contact with metals

Incompatible materials

reducing agents, flammable, oxidizable substances, organic substances

Hazardous decomposition products

Decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Primary routes of entry

Ingestion

Inhalation.

Skin

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of moderate toxicity after short-term skin contact. Of moderate toxicity after short-term inhalation.

Assessment other acute effects

Assessment of STOT single:

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Causes temporary irritation of the respiratory tract.

Irritation / corrosion

Assessment of irritating effects: May cause severe burns of the mouth and throat if orally ingested, as well as a danger of perforation of the oesophagus and the stomach.

Corrosive! Damages skin and eyes. May cause severe damage to the eyes.

Sensitization

Assessment of sensitization: The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated exposure may affect certain organs.

Genetic toxicity

Assessment of mutagenicity: Capable of causing genetic defects.

Carcinogenicity

Assessment of carcinogenicity: The substance caused cancer in animal studies. The product has not been tested. The statement has been derived from the properties of the individual components.

Reproductive toxicity

Assessment of reproduction toxicity: Contains a suspected reproductive toxin.

Other Information

The product has not been tested. The statement has been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic to aquatic life with long lasting effects. There are no test results available for this product. Do not allow to enter drains or waterways.

Bioaccumulative potential

Bioaccumulation potential

No data available.

Mobility in soil

Assessment transport between environmental compartments

No data available.

13. Disposal considerations

Waste disposal of substance:

Observe national and local legal requirements.

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Container disposal:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

USDOT

Hazard class: 8 Packing group: II

ID number: UN 3264

Hazard label: 8

Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (contains

CHROMIC ACID ANHYDRIDE/CHROMIUM TRIOXIDE,

CHROMIUM(III) CHROMATE)

Sea transport

IMDG

Hazard class: 8 Packing group: II

ID number: UN 3264 Hazard label: 8, EHSM Marine pollutant: YES

Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (contains

CHROMIC ACID ANHYDRIDE/CHROMIUM TRIOXIDE,

CHROMIUM(III) CHROMATE)

Air transport

IATA/ICAO

Hazard class: 8 Packing group: II

ID number: UN 3264

Hazard label: 8

Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (contains

CHROMIC ACID ANHYDRIDE/CHROMIUM TRIOXIDE,

CHROMIUM(III) CHROMATE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released; restriction on use / listed

TSCA § 6 final Risk Management Rule

40 CFR 749.68

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

EPCRA 313:

CAS Number Chemical name

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7697-37-2 Nitric acid

7789-04-0 Phosphoric acid, chromium(3+) salt (1:1)

1333-82-0 Chromium trioxide

CERCLA RQ CAS Number Chemical name

10 LBS 1333-82-0: 24613- Chromium trioxide: Dichromium tris(chromate)

89-6

State regulations

State RTK	CAS Number	Chemical name
NJ	7697-37-2	Nitric acid
	7789-04-0	Phosphoric acid, chromium(3+) salt (1:1)
PA	1333-82-0	Chromium trioxide
	7697-37-2	Nitric acid
	7789-04-0	Phosphoric acid, chromium(3+) salt (1:1)
	24613-89-6	Dichromium tris(chromate)

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including CHROMIUM (HEXAVALENT COMPOUNDS), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:

Health: 3 Fire: 0 Reactivity: 1 Special:

HMIS III rating

Health: 3 Flammability: 0 Physical hazard: 1

16. Other Information

SDS Prepared by:

Chemetall (now part of BASF Group) NA Product Regulations

SDS Prepared on: 2020/03/04

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