SAFETY DATA SHEET
CHROMATE CONVERSION COATING

1. Identification

Product identifier

Product name CHROMATE CONVERSION COATING

Product number 3004

Recommended use of the chemical and restrictions on use

Application Industrial Use

Details of the supplier of the safety data sheet

Supplier

SIFCO Applied Surface Concepts
5708 E. Schaaf Road
Independence, Ohio 44131
U.S.A.
Tel.: +1 216-524-0099
Fax: +1 216-524-6331
E-Mail: info@sifcoasc.com

Emergency telephone number

Emergency telephone CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 1B - H340 Carc. 1B - H350 Repr. 1B - H360FD STOT RE 1 - H372

Environmental hazards Aquatic Chronic 3 - H412

Label elements

Pictogram

Signal word Danger

CHROMATE CONVERSION COATING

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
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.
H360FD May damage fertility. May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 If on skin: Wash with plenty of water.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 Dispose of contents/ container in accordance with national regulations.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P260 Do not breathe vapors.

Contains SODIUM DICHROMATE, 0.2%

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

SODIUM DICHROMATE **1-5%**

CAS number: 10588-01-9

M factor (Acute) = 1 M factor (Chronic) = 1

Classification

Ox. Sol. 2 - H272
Acute Tox. 3 - H301
Acute Tox. 4 - H312
Acute Tox. 2 - H330
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Resp. Sens. 1 - H334
Skin Sens. 1 - H317
Muta. 1B - H340
Carc. 1B - H350
Repr. 1B - H360FD
STOT SE 3 - H335
STOT RE 1 - H372
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

CHROMATE CONVERSION COATING

SULPHURIC ACID 0.2% CAS number: 7664-93-9	**<1%**
Classification Skin Corr. 1A - H314 Eye Dam. 1 - H318	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

Inhalation Harmful: danger of serious damage to health by prolonged exposure through inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing, chest tightness, feeling of chest pressure.

Ingestion Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract. May cause stomach pain or vomiting.

Skin contact May cause skin irritation. May cause sensitization or allergic reactions in sensitive individuals. Prolonged contact may cause redness, irritation and dry skin.

Eye contact May cause blurred vision and serious eye damage. Causes serious eye irritation. Immediate first aid is imperative.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

Specific hazards Toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

CHROMATE CONVERSION COATING

Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapors. Provide adequate general and local exhaust ventilation.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

Storage class Toxic storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

SULPHURIC ACID 0.2%

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m³ thoracic fraction
Long-term exposure limit (8-hour TWA): OSHA 1 mg/m³
A2

ACGIH = American Conference of Governmental Industrial Hygienists.
OSHA = Occupational Safety and Health Administration.
A2 = Suspected Human Carcinogen.

Ingredient comments WEL = Workplace Exposure Limits

Exposure controls

Protective equipment

Appropriate engineering controls As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

CHROMATE CONVERSION COATING

Eye/face protection	Tight-fitting safety glasses.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Red.
Odor	No characteristic odor.
pH	pH (concentrated solution): 1.7-2.1
Relative density	1.05-1.06 @ 20°C
Other information	Not available.

10. Stability and reactivity

Reactivity	Reacts with alkalis and generates heat.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Not determined.
Conditions to avoid	Reacts with alkalis and generates heat. Avoid contact with strong reducing agents.
Materials to avoid	Strong alkalis. Strong reducing agents.
Hazardous decomposition products	None at ambient temperatures.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	5,882.35

Acute toxicity - dermal

ATE dermal (mg/kg)	64,705.88

Acute toxicity - inhalation

ATE inhalation (dusts/mists mg/l)	2.94

CHROMATE CONVERSION COATING

Inhalation	Vapors may irritate throat/respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms following overexposure may include the following: Coughing. Prolonged inhalation of high concentrations may damage respiratory system. Suspected to increase risk of cancer. May cause sensitisation by inhalation.
Ingestion	May cause stomach pain or vomiting. May cause severe internal injury.
Skin Contact	Prolonged or repeated exposure may cause severe irritation. May cause an allergic skin reaction. May cause sensitisation by skin contact.
Eye contact	Risk of serious damage to eyes. Causes serious eye irritation.
Acute and chronic health hazards	This chemical can be hazardous when inhaled and/or touched. This product may cause skin and eye irritation. Known or suspected carcinogen for humans.
Route of entry	Inhalation Ingestion. Skin and/or eye contact

Toxicological information on ingredients.

SODIUM DICHROMATE

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	59.0
Species	Rat
ATE oral (mg/kg)	100.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	2,000.0
Species	Rabbit
ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
ATE inhalation (dusts/mists mg/l)	0.05

SULPHURIC ACID 0.2%

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	2,140.0
Species	Rat
ATE oral (mg/kg)	2,140.0

12. Ecological Information

Ecotoxicity	Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.
Toxicity	No data available.

Ecological information on ingredients.

CHROMATE CONVERSION COATING

SODIUM DICHROMATE

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hour: 13 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates	, 24 hours: 1.5 mg/l,
Acute toxicity - aquatic plants	NOEC, 8 day: 0.1 mg/l, Algae

Chronic aquatic toxicity

M factor (Chronic)	1

SULPHURIC ACID 0.2%

Acute toxicity - fish	LC_{50}, 96 hours: 42 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, : 29 mg/l, Daphnia magna

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential The product does not contain any substances expected to be bioaccumulating.

Mobility in soil

Mobility The product is soluble in water.

Other adverse effects

Other adverse effects Not determined.

13. Disposal considerations

Waste treatment methods

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

14. Transport information

UN Number

UN No. (TDG)	3289
UN No. (IMDG)	3289
UN No. (ICAO)	3289
UN No. (DOT)	3289

UN proper shipping name

Proper shipping name (TDG)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (SODIUM DICHROMATE)
Proper shipping name (IMDG)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (SODIUM DICHROMATE)

CHROMATE CONVERSION COATING

Proper shipping name (ICAO)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (SODIUM DICHROMATE)
Proper shipping name (DOT)	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S. (SODIUM DICHROMATE)

Transport hazard class(es)

TDG class	6.1
TDG subsidiary risk	8
TDG label(s)	6.1 & 8
IMDG Class	6.1
IMDG subsidiary risk	8
ICAO class/division	6.1
ICAO subsidiary risk	8

Transport labels

Packing group

TDG Packing Group	II
IMDG packing group	II
ICAO packing group	II
DOT packing group	II

Environmental hazards

Environmentally Hazardous Substance

Special precautions for user

EmS	F-A, S-B

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Sulfuric Acid 1000 lbs

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Sodium Bichromate
Final CERCLA RQ: 10 lbs
Sulfuric Acid
Final CERCLA RQ: 1000 lbs

CHROMATE CONVERSION COATING

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Sulfuric Acid
EPCRA RQ: 1000 lbs

SARA 313 Emission Reporting

Sodium Bichromate

CAA Accidental Release Prevention

Exempt.

SARA (311/312) Hazard Categories

Acute
Chronic

OSHA Highly Hazardous Chemicals

Exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Exempt.

California Directors List of Hazardous Substances

Sodium Bichromate
Sulfuric Acid

Inventories

US - TSCA

All ingredients are present.

16. Other information

Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Carc. = Carcinogenicity Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Flam. Liq. = Flammable liquid Muta. = Germ cell mutagenicity Repr. = Reproductive toxicity Resp. Sens. = Respiratory sensitisation Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation Skin Sens. = Skin sensitisation STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure
Revision date	8/25/2017
Revision	4

CHROMATE CONVERSION COATING

Hazard statements in full	H272 May intensify fire; oxidizer. H301 Toxic if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H340 May cause genetic defects. H350 May cause cancer. H360FD May damage fertility. May damage the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
NFPA - instability hazard	Normally stable. (0)
NFPA - health hazard	Extremely hazardous, serious injury. (3)
NFPA - flammability hazard	Will not burn. (0)

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisy itself as to the suitability of the product.