



## SAFETY DATA SHEET CHROMIUM (BLACK)

### 1. Identification

#### Product identifier

Product name CHROMIUM (BLACK)

Product number 5151

#### 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 Ox. Liq. 2 - H272

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 1B - H340 Carc. 1A - H350 Repr. 2 - H361f STOT SE 3 - H335 STOT RE 1 - H372

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

#### Label elements

##### Pictogram



##### Signal word

Danger

## CHROMIUM (BLACK)

### Hazard statements

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H340 May cause genetic defects.  
H350 May cause cancer.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H410 Very toxic to aquatic life with long lasting effects.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H272 May intensify fire; oxidizer.  
H361f Suspected of damaging fertility.  
H335 May cause respiratory irritation.  
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

### Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  
P220 Keep away from combustible materials.  
P221 Take any precaution to avoid mixing with combustibles.  
P260 Do not breathe vapor/spray.  
P264 Wash contaminated skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P284 [In case of inadequate ventilation] wear respiratory protection.  
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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.  
P308+P313 If exposed or concerned: Get medical advice/attention.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with national regulations.

### Contains

CHROMIUM TRIOXIDE

### Other hazards

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

### 3. Composition/information on ingredients

### Mixtures

**CHROMIUM (BLACK)**

<b>CHROMIUM TRIOXIDE</b>	<b>10-30%</b>
CAS number: 1333-82-0	
M factor (Acute) = 10	M factor (Chronic) = 10
<b>Classification</b> Ox. Sol. 1 - H271 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1A - H314 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 1B - H340 Carc. 1A - H350 Repr. 2 - H361f STOT SE 3 - H335 STOT RE 1 - H372 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
<b>FLUROSILICIC ACID ...%</b>	<b>&lt;1%</b>
CAS number: 16961-83-4	
<b>Classification</b> Skin Corr. 1B - H314 Eye Dam. 1 - H318	

The Full Text for all Hazard Statements are Displayed in Section 16.

#### 4. First-aid measures

##### Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Ingestion</b>	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.
<b>Skin Contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.
<b>Eye contact</b>	It is recommended that suitable facilities for quick drenching or flushing of the eyes and body be provided within the work area for immediate emergency use. Remove affected person from source of contamination. Make sure to remove any contact lenses from the eyes before rinsing. 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

<b>Inhalation</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Coughing, chest tightness, feeling of chest pressure. High concentrations may be fatal.
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## CHROMIUM (BLACK)

<b>Ingestion</b>	Harmful: danger of serious damage to health by prolonged exposure if swallowed. May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.
<b>Skin contact</b>	Harmful in contact with skin. May cause serious chemical burns to the skin. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes severe burns. May cause serious eye damage.

### 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 and corrosive 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

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. 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. Stop leak if possible without risk. DO NOT touch spilled material! Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. 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

## CHROMIUM (BLACK)

<b>Storage precautions</b>	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.
<b>Storage class</b>	Toxic storage. Corrosive storage.
<b>Specific end uses(s)</b>	
<b>Specific end use(s)</b>	The identified uses for this product are detailed in Section 1.2.

### 8. Exposure Controls/personal protection

#### 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.

##### 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

<b>Appearance</b>	Liquid.
<b>Color</b>	Red.
<b>Odor</b>	No characteristic odor.
<b>pH</b>	pH (concentrated solution): 0-1
<b>Relative density</b>	1.171-1.175 @ 20°C
<b>Other information</b>	Not available.

### 10. Stability and reactivity

<b>Reactivity</b>	Reacts with alkalis and generates heat.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	Not determined.

## CHROMIUM (BLACK)

<b>Conditions to avoid</b>	Reacts with alkalis and generates heat. Avoid contact with strong reducing agents.
<b>Materials to avoid</b>	Strong alkalis. Strong reducing agents.
<b>Hazardous decomposition products</b>	None at ambient temperatures.

### 11. Toxicological information

#### Information on toxicological effects

##### Acute toxicity - oral

ATE oral (mg/kg) 469.48

##### Acute toxicity - dermal

ATE dermal (mg/kg) 1,408.45

##### Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

<b>Inhalation</b>	May cause respiratory system irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. High concentrations may be fatal. Prolonged inhalation of high concentrations may damage respiratory system.
<b>Ingestion</b>	Harmful: danger of serious damage to health by prolonged exposure if swallowed. May cause chemical burns in mouth and throat.
<b>Skin Contact</b>	Causes burns. May cause an allergic skin reaction. Harmful in contact with skin.
<b>Eye contact</b>	Causes burns. Risk of serious damage to eyes.
<b>Acute and chronic health hazards</b>	This product is corrosive. Known or suspected carcinogen for humans.
<b>Route of entry</b>	Ingestion Inhalation Skin and/or eye contact

#### Toxicological information on ingredients.

#### CHROMIUM TRIOXIDE

##### Acute toxicity - oral

ATE oral (mg/kg) 100.0

##### Acute toxicity - dermal

ATE dermal (mg/kg) 300.0

### 12. Ecological Information

**Ecotoxicity** Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

#### Toxicity

**Toxicity** No data available.

#### Ecological information on ingredients.

#### CHROMIUM TRIOXIDE

##### Acute aquatic toxicity

**CHROMIUM (BLACK)**

<b>LE(C)<sub>50</sub></b>	0.01 < L(E)C <sub>50</sub> ≤ 0.1
<b>M factor (Acute)</b>	10
<b>Acute toxicity - fish</b>	LC <sub>50</sub> , 96 hours: 40 mg/l, Fish
<b>Acute toxicity - aquatic invertebrates</b>	EC <sub>50</sub> , 48 hours: 0.31 mg/l, Daphnia magna
<b>Acute toxicity - aquatic plants</b>	IC <sub>50</sub> , 72 hours: 1.0 mg/l, Algae
<b><u>Chronic aquatic toxicity</u></b>	
<b>M factor (Chronic)</b>	10

**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.

**Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

**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**

<b>UN No. (DOT)</b>	3098
<b>UN No. (IMDG)</b>	3098
<b>UN No. (ICAO)</b>	3098

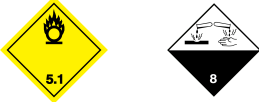
**UN proper shipping name**

<b>Proper shipping name (DOT)</b>	OXIDIZING LIQUID, CORROSIVE, N.O.S. (CHROMIUM TRIOXIDE, FLUOROSILICIC ACID ...%)
<b>Proper shipping name (IMDG)</b>	OXIDIZING LIQUID, CORROSIVE, N.O.S. (CHROMIUM TRIOXIDE, FLUOROSILICIC ACID ...%)
<b>Proper shipping name (ICAO)</b>	OXIDIZING LIQUID, CORROSIVE, N.O.S. (CHROMIUM TRIOXIDE, FLUOROSILICIC ACID ...%)

**Transport hazard class(es)**

**CHROMIUM (BLACK)**

<b>IMDG Class</b>	5.1
<b>IMDG subsidiary risk</b>	8
<b>ICAO class/division</b>	5.1
<b>ICAO subsidiary risk</b>	8

**Transport labels****Packing group**

<b>DOT pack group</b>	II
<b>IMDG packing group</b>	II
<b>ICAO packing group</b>	II

**Environmental hazards****Environmentally Hazardous Substance****Special precautions for user**

**EmS** F-A, S-Q

**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)**

Sulfuric Acid  
Final CERCLA RQ: 1000 lbs

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

Sulfuric Acid  
EPCRA RQ: 1000 lbs

**SARA 313 Emission Reporting**

Chromium Trioxide  
Sulfuric Acid

**CAA Accidental Release Prevention**

Exempt.

**SARA (311/312) Hazard Categories**

Acute  
Chronic



## CHROMIUM (BLACK)

### OSHA Highly Hazardous Chemicals

Exempt.

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

Chromium Trioxide

#### California Directors List of Hazardous Substances

Sulfuric Acid

### Inventories

#### US - TSCA

All ingredients are present.

### 16. Other information

<b>Revision date</b>	9/17/2015
<b>Revision</b>	2
<b>Hazard statements in full</b>	<p>H272 May intensify fire; oxidizer.  H302 Harmful if swallowed.  H312 Harmful in contact with skin.  H314 Causes severe skin burns and eye damage.  H317 May cause an allergic skin reaction.  H318 Causes serious eye damage.  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.  H361f Suspected of damaging fertility.  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.</p>
<b>NFPA - health hazard</b>	Extremely hazardous, serious injury. (3)
<b>NFPA - flammability hazard</b>	Will not burn. (0)
<b>NFPA - instability hazard</b>	Unstable if heated. (1)
<b>NFPA - special hazard</b>	OX

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 satisfy itself as to the suitability of the product.