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SECTION 1: Identification of the substance/mixture and of the company/ undertaking

· **1.1 Product identifier**

· **Trade name: Chromerge®**

· **Article number:** F17089-0000

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture**
Glass Cleaner
Laboratory chemicals

· **1.3 Details of the supplier of the Safety Data Sheet**

· **Manufacturer/Supplier:**
Bel-Art Products
661 Route 23
Wayne, NJ 07470
(800) 423-5278

· **1.4 Emergency telephone number:** +1 (800) 457-4280

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H361f, H400, H410.
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H361.


Repr. 2 H361: Suspected of damaging fertility or the unborn child.


flame over circle

Ox. Liq. 3 H272 May intensify fire; oxidiser.


skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.
Acute Tox. 3 H311 Toxic in contact with skin.
Acute Tox. 2 H330 Fatal if inhaled.


health hazard

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Resp. Sens. 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Muta. 1B	H340	May cause genetic defects.
Carc. 1A	H350	May cause cancer.
Repr. 2	H361f	Suspected of damaging fertility.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.


corrosion

Skin Corr. 1A	H314	Causes severe skin burns and eye damage.


environment

Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.

Skin Sens. 1	H317	May cause an allergic skin reaction.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**


T+; Very toxic

R26: Very toxic by inhalation.


T; Toxic

R45-46-24/25: May cause cancer. May cause heritable genetic damage. Toxic in contact with skin and if swallowed.


C; Corrosive

R35: Causes severe burns.


Xn; Harmful

R48-62: Danger of serious damage to health by prolonged exposure. Possible risk of impaired fertility.


Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.


Xi; Irritant

R37: Irritating to respiratory system.


O; Oxidising

R8: Contact with combustible material may cause fire.

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 N; Dangerous for the environment

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

· **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**
The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).
The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**

 This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).

GHS03 GHS05 GHS06 GHS08 GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**
chromium (VI) trioxide

· **Hazard statements**
The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H361f, H410.
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H361.
H361: Suspected of damaging fertility or the unborn child.
H272 May intensify fire; oxidiser.
H301+H311 Toxic if swallowed or in contact with skin.
H330 Fatal if inhaled.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H340 May cause genetic defects.
H350 May cause cancer.
H361f Suspected of damaging fertility.
H372 Causes damage to organs through prolonged or repeated exposure.

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H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P221 Take any precaution to avoid mixing with combustibles.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260 Do not breathe mist/vapours/spray.
P281 Use personal protective equipment as required.
P202 Do not handle until all safety precautions have been read and understood.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P370+P378 In case of fire: Use for extinction: CO_2, powder or water spray.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**
Restricted to professional users.

· **Hazard description:**

· **WHMIS-symbols:**
C - Oxidizing materials
D1A - Very toxic material causing immediate and serious toxic effects
D2A - Very toxic material causing other toxic effects
E - Corrosive material

· **NFPA ratings (scale 0 - 4)**

Health = 3
Fire = 1
Reactivity = 0

This substance possesses oxidizing properties.

· **HMIS-ratings (scale 0 - 4)**

Health = *3
Fire = 1
Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

· **HMIS Long Term Health Hazard Substances**	
1333-82-0	chromium (VI) trioxide

· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.

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· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 1333-82-0 EINECS: 215-607-8 Index number: 024-001-00-0	chromium (VI) trioxide T+ R26; T Carc. Cat. 1, Muta. Cat. 2 R45-46-24/25-48/23; C R35; Xn R62; Xn R42/43; O R9; N R50/53 Repr. Cat. 3 Ox. Sol. 1, H271 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330 Resp. Sens. 1, H334; Muta. 1B, H340; Carc. 1A, H350; Repr. 2, H361f; STOT RE 1, H372 Skin Corr. 1A, H314 Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Skin Sens. 1, H317	25-50%

· **SVHC**

1333-82-0	chromium (VI) trioxide

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Remove breathing equipment only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Take affected persons out into the fresh air.
· **After inhalation:**
Supply fresh air or oxygen; call for doctor.
Provide oxygen treatment if affected person has difficulty breathing.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Rinse with copious amounts of water. Wash with soap and water. Launder affected clothing before re-use.
Seek medical treatment.
· **After eye contact:**
Remove contact lenses if worn, if possible.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.

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Do not induce vomiting; call for medical help immediately.

· **4.2 Most important symptoms and effects, both acute and delayed**
Asthma attacks
Breathing difficulty
Dizziness
Coughing
Allergic reactions
Strong caustic effect on skin and mucous membranes.
May cause respiratory irritation.
Gastric or intestinal disorders when ingested.

· **Hazards**
Danger of gastric perforation.
Danger of impaired breathing.
Causes serious eye damage.
Causes damage to organs through prolonged or repeated exposure.
Toxic if swallowed or in contact with skin.
Danger of disturbed cardiac rhythm.

· **4.3 Indication of any immediate medical attention and special treatment needed**
Monitor circulation, possible shock treatment.
Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.
Medical supervision for at least 48 hours.
If necessary oxygen respiration treatment.
Contains chromium (VI) trioxide. May produce an allergic reaction.
In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** None.
· **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
May intensify fire; oxidiser.
· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
· **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.

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Wear respiratory protection.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Isolate area and prevent access.
Keep people at a distance and stay on the windward side.
Keep away from ignition sources.

· **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
Prevent from spreading (e.g. by damming-in or oil barriers).
Keep contaminated washing water and dispose of appropriately.

· **6.3 Methods and material for containment and cleaning up:**
Use limestone to neutralize and absorb spill.
Ensure adequate ventilation.
Send for recovery or disposal in suitable receptacles.
Dispose contaminated material as waste according to item 13.

· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Use only in well ventilated areas.
Open and handle receptacle with care.
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.

· **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Keep respiratory protective device available.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**
Use only receptacles specifically permitted for this substance/product.
Unsuitable material for receptacle: steel.
Unsuitable material for receptacle: glass or ceramic.
Unsuitable material for receptacle: aluminium.

· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from flammable substances.

· **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.

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· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
1333-82-0 chromium (VI) trioxide	
PEL (USA)	Long-term value: 0,005* mg/m³ Ceiling limit: 0,1** mg/m³ *as Cr(VI) **as CrO3; see 29 CFR 1910,1026
REL (USA)	Long-term value: 0,0002 mg/m³ as Cr; See Pocket Guide Apps. A and C
TLV (USA)	Long-term value: 0,05 mg/m³ as Cr; BEI
EL (Canada)	Long-term value: 0,025 mg/m³ Ceiling limit: 0,1 mg/m³ as Cr; ACGIH A1, IARC 1

· **DNELs** No further relevant information available.
· **PNECs** No further relevant information available.

· **Ingredients with biological limit values:**	
1333-82-0 chromium (VI) trioxide	
BEI (USA)	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume) 10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Clean skin thoroughly immediately after handling the product.
Use only in well ventilated areas.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

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· **Respiratory protection:**

Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact gloves made of the following materials are suitable:**
Butyl rubber, BR
Fluorocarbon rubber (Viton)
PVC gloves

· **Not suitable are gloves made of the following materials:**
Neoprene gloves
PVA gloves
Natural rubber, NR

· **Eye protection:**
Contact lenses should not be worn.

Safety glasses

· **Body protection:**

Apron

Acid resistant protective clothing

· **Limitation and supervision of exposure into the environment**
No further relevant information available.

· **Risk management measures**
See Section 7 for additional information.
No further relevant information available.

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Liquid
Colour:	Dark brown
· **Odour:**	Odourless
· **Odour threshold:**	Not determined.
· **pH-value at 20 °C (68 °F):**	< 1
· **Change in condition**	
Melting point/Melting range:	Not Determined.
Boiling point/Boiling range:	100 °C (212 °F)
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Not applicable.
· **Auto/Self-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Self-igniting:**	Product is not self-igniting.
· **Danger of explosion:**	Not determined.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Oxidising properties**	Oxidizer
· **Vapour pressure:**	Not determined.
· **Density at 20 °C (68 °F):**	1,47 g/cm³ (12,267 lbs/gal)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Soluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **9.2 Other information**	No further relevant information available.

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SECTION 10: Stability and reactivity

· **10.1 Reactivity**
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **10.3 Possibility of hazardous reactions**
Reacts with halogenated compounds.
Corrosive action on metals.
May intensify fire; oxidiser.
May produce violent reactions with bases and numerous organic substances including alcohols and amines.
· **10.4 Conditions to avoid**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep/Store away from clothing/combustible materials.
Take any precaution to avoid mixing with combustibles.
· **10.5 Incompatible materials:** No further relevant information available.
· **10.6 Hazardous decomposition products:** Toxic metal oxide smoke

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**		
1333-82-0 chromium (VI) trioxide		
Oral	LD50	80 mg/kg (rat)

· **Primary irritant effect:**
· **on the skin:** Strong caustic effect on skin and mucous membranes.
· **on the eye:** Strong caustic effect.
· **Sensitisation:** May cause sensitisation by inhalation and skin contact.
· **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Corrosive
Very toxic
Danger through skin adsorption.
Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
Carcinogenic.
The product can cause inheritable damage.
May cause genetic defects.
Suspected of damaging fertility or the unborn child.
· **Acute effects (acute toxicity, irritation and corrosivity):** Vapours have narcotic effect.

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· **Repeated dose toxicity:**
May cause damage to organs through prolonged or repeated exposure.
Repeated exposures may result in skin and/or respiratory sensitivity.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**
Muta. 1B, Carc. 1A, Repr. 2

SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:**
The material is harmful to the environment.
Toxic to aquatic life.
· **12.2 Persistence and degradability** Not easily biodegradable
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **Ecotoxical effects:**
· **Remark:** Very toxic for fish
· **Additional ecological information:**
· **General notes:**
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even extremely small quantities leak into the ground.
Very toxic for aquatic organisms
Also poisonous for fish and plankton in water bodies.
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

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· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**

· **DOT** UN1755
Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.

· **ADR, IMDG, IATA** UN1755

· **14.2 UN proper shipping name**

Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

· **DOT, IATA** Chromic acid solution

· **ADR** 1755 CHROMIC ACID SOLUTION, ENVIRONMENTALLY HAZARDOUS

· **IMDG** CHROMIC ACID SOLUTION, MARINE POLLUTANT

· **14.3 Transport hazard class(es)**

· **DOT**

· **Class** 8 Corrosive substances.

· **Label** 8

· **ADR**

· **Class** 8 (C1) Corrosive substances.

· **Label** 8

· **IMDG**

· **Class** 8 Corrosive substances.

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· **Label** 8

· **IATA**

· **Class**	8 Corrosive substances.
· **Label**	8
· **14.4 Packing group**	
· **DOT, ADR, IMDG, IATA**	II
· **14.5 Environmental hazards:**	Product contains environmentally hazardous substances: chromium (VI) trioxide
· **Marine pollutant:**	Yes Symbol (fish and tree)
· **Special marking (ADR):**	Symbol (fish and tree)
· **14.6 Special precautions for user**	Warning: Corrosive substances.
· **Danger code (Kemler):**	80
· **EMS Number:**	F-A,S-B
· **Segregation groups**	Acids
· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **Transport/Additional information:**	
· **ADR**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **Transport category**	2
· **Tunnel restriction code**	E
· **IMDG**	
· **Limited quantities (LQ)**	1L
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **UN "Model Regulation":**	UN1755, CHROMIC ACID SOLUTION, ENVIRONMENTALLY HAZARDOUS, 8, II

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **United States (USA)**
· **SARA**

· **Section 355 (extremely hazardous substances):**
None of the ingredients are listed.

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· **Section 313 (Specific toxic chemical listings):**

1333-82-0	chromium (VI) trioxide

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**

1333-82-0	chromium (VI) trioxide

· **Chemicals known to cause reproductive toxicity for females:**

1333-82-0	chromium (VI) trioxide

· **Chemicals known to cause reproductive toxicity for males:**

1333-82-0	chromium (VI) trioxide

· **Chemicals known to cause developmental toxicity:**

1333-82-0	chromium (VI) trioxide

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**

1333-82-0	chromium (VI) trioxide	A(inh), D(oral), K/L(inh), CBD(oral)

· **IARC (International Agency for Research on Cancer)**

1333-82-0	chromium (VI) trioxide	1

· **TLV (Threshold Limit Value established by ACGIH)**

1333-82-0	chromium (VI) trioxide	A1

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-82-0	chromium (VI) trioxide

· **Canada**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

1333-82-0	chromium (VI) trioxide

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients are listed.

· **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **Other regulations, limitations and prohibitive regulations**
This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· **Substances of very high concern (SVHC) according to REACH, Article 57**

1333-82-0	chromium (VI) trioxide

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according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

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· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H271 May cause fire or explosion; strong oxidiser.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
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.

R24/25 Toxic in contact with skin and if swallowed.
R26 Very toxic by inhalation.
R35 Causes severe burns.
R42/43 May cause sensitisation by inhalation and skin contact.
R45 May cause cancer.
R46 May cause heritable genetic damage.
R48/23 Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62 Possible risk of impaired fertility.
R9 Explosive when mixed with combustible material.

· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Ox. Liq. 3: Oxidising Liquids, Hazard Category 3
Ox. Sol. 1: Oxidising Solids, Hazard Category 1

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Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 2: Acute toxicity, Hazard Category 2
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Muta. 1B: Germ cell mutagenicity, Hazard Category 1B
Carc. 1A: Carcinogenicity, Hazard Category 1A
Repr. 2: Reproductive toxicity, Hazard Category 2
STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

· **Sources**

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