

## Safety data sheet according to U.S.A. Federal Hazcom 2012

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code: C10521  
Product name: Chromic Acid 20% w/v aqueous

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use: For Laboratory Use Only.

#### 1.3. Details of the supplier of the safety data sheet

Name: EXAXOL CHEMICAL CORPORATION  
Full address: 14325 60 TH ST N  
District and Country: 33760 CLEARWATER - FLORIDA  
US  
Tel. 1-727-524-7732  
Fax 1-727-532-8221

e-mail address

info@exaxol.com

#### 1.4. Emergency telephone number

For urgent inquiries refer to: 1-800-255-3924  
ChemTel Inc.

### SECTION 2. Hazards identification.

#### 2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

#### Classification and Hazard Statement.

Carcinogenicity, category 1A  
Germ cell mutagenicity, category 1B  
Reproductive toxicity, category 2  
Acute toxicity, category 3  
Acute toxicity, category 4  
Specific target organ toxicity - repeated exposure, category 1  
Skin corrosion, category 1A  
Serious eye damage, category 1  
Specific target organ toxicity - single exposure, category 3  
Respiratory sensitization, category 1  
Skin sensitization, category 1

May cause cancer.  
May cause genetic defects.  
Suspected of damaging fertility or the unborn child.  
Toxic if swallowed.  
Harmful in contact with skin or if inhaled.  
Causes damage to organs through prolonged or repeated exposure.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.  
May cause respiratory irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.



**C10521 - Chromic Acid 20% w/v aqueous**

Signal words:            Danger

## Hazard statements:

**H350**                    May cause cancer.  
**H340**                    May cause genetic defects.  
**H361**                    Suspected of damaging fertility or the unborn child.  
**H301**                    Toxic if swallowed.  
**H312+H332**            Harmful in contact with skin or if inhaled.  
**H372**                    Causes damage to organs through prolonged or repeated exposure.  
**H314**                    Causes severe skin burns and eye damage.  
**H335**                    May cause respiratory irritation.  
**H334**                    May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
**H317**                    May cause an allergic skin reaction.

## Precautionary statements:

## Prevention:

**P201**                    Obtain special instructions before use.  
**P202**                    Do not handle until all safety precautions have been read and understood.  
**P260**                    Do not breathe dust / fume / gas / mist / vapours / spray.  
**P264**                    Wash water thoroughly after handling.  
**P270**                    Do not eat, drink or smoke when using this product.  
**P271**                    Use only outdoors or in a well-ventilated area.  
**P272**                    Contaminated work clothing should not be allowed out of the workplace.  
**P280**                    Wear protective gloves / protective clothing / eye protection / face protection.  
**P284**                    [In case of inadequate ventilation] wear respiratory protection.

## Response:

**P301+P330+P331**    IF SWALLOWED: rinse mouth. Do not induce vomiting.  
**P302+P352**            IF ON SKIN: wash with plenty of water.  
**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.  
**P310**                    Immediately call a POISON CENTER / doctor.  
**P321**                    Specific treatment (see label).  
**P330**                    Rinse mouth.  
**P362+P364**            Take off contaminated clothing and wash it before reuse.  
**P363**                    Wash contaminated clothing before reuse.

## Storage:

**P403+P233**            Store in a well-ventilated place. Keep container tightly closed.  
**P405**                    Store locked up.

## Disposal:

**P501**                    Dispose of contents / container to an approved waste disposal plant.

## 2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

## Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 2

Toxic to aquatic life with long lasting effects.



## Hazard statements:

## C10521 - Chromic Acid 20% w/v aqueous

**H411** Toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

**P273** Avoid release to the environment.

Response:

**P391** Collect spillage.

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Storage:

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Disposal:

**P501** Dispose of contents / container to an approved waste disposal plant.

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Additional hazards.

### SECTION 3. Composition/information on ingredients.

#### 3.1. Substances.

Information not relevant.

#### 3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
<b>WATER</b>		
CAS. 7732-18-5	50 - 100	
<b>CHROMIUM TRIOXIDE ( 52% - metallic element )</b>		
CAS. 1333-82-0	9 - 25	Oxidising solid, category 1 H271, Carcinogenicity, category 1A H350, Germ cell mutagenicity, category 1B H340, Reproductive toxicity, category 2 H361f, Acute toxicity, category 2 H330, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Specific target organ toxicity - repeated exposure, category 1 H372, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

## SECTION 4. First aid measures.

### 4.1. Description of first aid measures.

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

**INGESTION:** Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

**INHALATION:** Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

### 4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

### 4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

## SECTION 5. Firefighting measures.

### 5.1. Extinguishing media.

#### SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

#### UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

### 5.2. Special hazards arising from the substance or mixture.

#### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

### 5.3. Advice for firefighters.

#### GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures.

**6.1. Personal precautions, protective equipment and emergency procedures.**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions.**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

**6.3. Methods and material for containment and cleaning up.**

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections.**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage.****7.1. Precautions for safe handling.**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

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

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

**7.3. Specific end use(s).**

Information not available.

**SECTION 8. Exposure controls/personal protection.****8.1. Control parameters.**

Regulatory References:

USA      NIOSH-REL      NIOSH publication No. 2005-149, 3th printing, 2007.

**C10521 - Chromic Acid 20% w/v aqueous**

TLV-ACGIH

ACGIH 2014

**CHROMIUM TRIOXIDE****Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0.05			
NIOSH	USA	0.001			

**8.2. Exposure controls.**

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

The product must be used inside a closed circuit, in a well-ventilated environment and with strong localised aspiration systems in place.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

**HAND PROTECTION**

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

**SKIN PROTECTION**

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

**RESPIRATORY PROTECTION**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

**ENVIRONMENTAL EXPOSURE CONTROLS.**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

**SECTION 9. Physical and chemical properties.**

**9.1. Information on basic physical and chemical properties.**

Appearance	Not available.
Colour	Not available.
Odour	Not available.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 93 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1.144 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

**9.2. Other information.**

Information not available.

**SECTION 10. Stability and reactivity.****10.1. Reactivity.**

Information not available.

**10.2. Chemical stability.**

Information not available.

**10.3. Possibility of hazardous reactions.**

The product may react violently with water.

**10.4. Conditions to avoid.**

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

**10.5. Incompatible materials.**

Information not available.

#### 10.6. Hazardous decomposition products.

Information not available.

## SECTION 11. Toxicological information.

### 11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product has a carcinogenic effect on human beings. Currently available data suggest a cause-effect relationship between human exposure to the substance contained in this product and cancer development.

This product may have a mutagenic effect on human beings. Currently available data may suggest that human exposure to the substance contained in this product may give rise to the development of hereditary gene alterations.

This product must be handled carefully because of its possible teratogenic effects, which may reduce human fertility or because of its possible teratogenic effects, which may be toxic and damage the foetus development.

Acute effects: this product is toxic and causes poisoning by ingestion.

Ingestion of even small amounts of product may cause serious health disorders, which may include: mouth and throat lesions or burns, nausea, stomach pain, sickness, diarrhoea, sudoresis, loss of consciousness, convulsions.

Acute effects: inhalation and cutaneous absorption of this product are harmful. This product may irritate mucosae, the upper respiratory tract, and eyes. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness.

In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema. Upon contact with skin, this product may irritate it, causing an increase in skin temperature, swelling and itchiness. Ingestion of even small amounts of this product may cause health problems (stomach pain, nausea, sickness, diarrhoea).

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma. Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurries, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurry skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CHROMIUM TRIOXIDE

LD50 (Oral).55 mg/kg Rat

LC50 (Inhalation).0.217 mg/l/4h Rat

## SECTION 12. Ecological information.

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

### 12.1. Toxicity.

CHROMIUM TRIOXIDE



LC50 - for Fish. 49 mg/l/96h Channa punctata  
EC50 - for Crustacea. 0.15 mg/l/48h Daphnia magna

#### 12.2. Persistence and degradability.

CHROMIUM TRIOXIDE  
Solubility in water. > 10000 mg/l

Biodegradability: Information not available.

#### 12.3. Bioaccumulative potential.

Information not available.

#### 12.4. Mobility in soil.

Information not available.

#### 12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

#### 12.6. Other adverse effects.

Information not available.

### SECTION 13. Disposal considerations.

#### 13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

### SECTION 14. Transport information.

### SECTION 15. Regulatory information.

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

TSCA:

All components are listed on TSCA Inventory.

**C10521 - Chromic Acid 20% w/v aqueous**Clean Air Act Section 112(b):

1333-82-0

CHROMIUM TRIOXIDE (Chromium  
compounds)Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act –  
Priority Pollutants:

No component(s) listed.

Clean Water Act –  
Toxic Pollutants:

1333-82-0

CHROMIUM TRIOXIDE (Chromium  
compounds)DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

No component(s) listed.

EPA List of Lists:

313 Category Code:

1333-82-0

CHROMIUM TRIOXIDE (Chromium  
compounds)

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

No component(s) listed.

EPCRA 313 TRI:

1333-82-0

CHROMIUM TRIOXIDE (Chromium  
compounds)

RCRA Code:

## C10521 - Chromic Acid 20% w/v aqueous

No component(s) listed.

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations.

Massachusetts:

1333-82-0

CHROMIUM TRIOXIDE (Chromium compounds)

Minnesota:

1333-82-0

CHROMIUM TRIOXIDE (Chromium compounds)

New Jersey:

1333-82-0

CHROMIUM TRIOXIDE (Chromium compounds)

New York:

No component(s) listed.

Pennsylvania:

1333-82-0

CHROMIUM TRIOXIDE (Chromium compounds)

California:

1333-82-0

CHROMIUM TRIOXIDE (Chromium compounds)

Proposition 65:

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Canadian WHMIS.

Information not available.

## SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

**C10521 - Chromic Acid 20% w/v aqueous**

<b>Ox. Sol. 1</b>	Oxidising solid, category 1
<b>Carc. 1A</b>	Carcinogenicity, category 1A
<b>Muta. 1B</b>	Germ cell mutagenicity, category 1B
<b>Repr. 2</b>	Reproductive toxicity, category 2
<b>Acute Tox. 2</b>	Acute toxicity, category 2
<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>STOT RE 1</b>	Specific target organ toxicity - repeated exposure, category 1
<b>Skin Corr. 1A</b>	Skin corrosion, category 1A
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Skin Corr. 1C</b>	Skin corrosion, category 1C
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Resp. Sens. 1</b>	Respiratory sensitization, category 1
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>Aquatic Chronic 4</b>	Hazardous to the aquatic environment, chronic toxicity, category 4
<b>H271</b>	May cause fire or explosion; strong oxidiser.
<b>H350</b>	May cause cancer.
<b>H340</b>	May cause genetic defects.
<b>H361</b>	Suspected of damaging fertility or the unborn child.
<b>H361f</b>	Suspected of damaging fertility.
<b>H330</b>	Fatal if inhaled.
<b>H301</b>	Toxic if swallowed.
<b>H311</b>	Toxic in contact with skin.
<b>H312+H332</b>	Harmful in contact with skin or if inhaled.
<b>H372</b>	Causes damage to organs through prolonged or repeated exposure.
<b>H314</b>	Causes severe skin burns and eye damage.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H334</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>H317</b>	May cause an allergic skin reaction.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>H413</b>	May cause long lasting harmful effects to aquatic life.

LEGEND:

**EXAXOL CHEMICAL CORPORATION**

Revision nr. 1

Dated 15/3/2016

**C10521 - Chromic Acid 20% w/v aqueous**

Printed on 3/15/2016

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- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 © RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112©)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

**GENERAL BIBLIOGRAPHY:**

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112© of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Department Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.