



MATERIAL SAFETY DATA SHEET
In Accordance with ISO/DIS 11014

Review Date 06/24/2013

Revision Date 06/21/2012

1 Identification of the Substance/Mixture and Company

Product Name: 5% Chromic Acid

MSDS Code: SSKC091

Product Description: Kit Component

Manufacturer/Supplier:

American MasterTech
1330 Thurman Street
Lodi, CA 95240
USA
(800) 860-4073

European Authorized Representative:

Emergo Europe
Moleensraat 15
2513 BH The Hague,
The Netherlands

Emergency Telephone Number: Infotrac (800) 535-5053 (24 hours) - International (011) 352-323-3500

2 Hazards Identification

Classification of the substance or mixture



GHS03 Flame over circle

Ox. Liq. 1 H271 May cause fire or explosion; strong oxidizer.



GHS06 Skull and crossbones

Acute Tox. 3 H331 Toxic if inhaled.



GHS08 Health hazard

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 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

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

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GHS07

Acute Tox. 4 H302 Harmful if swallowed.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335+H336 May cause respiratory irritation. May cause drowsiness or dizziness.

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


T; Toxic

R45-46-23: May cause cancer. May cause heritable genetic damage. Toxic by inhalation.



C; Corrosive

R34: Causes burns.



Xn; Harmful

R21/22-48/20-62: Harmful in contact with skin and if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility.



Xn; Sensitizing

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



Xi; Irritant

R37: Irritating to respiratory system.



O; Oxidizing

R9: Explosive when mixed with combustible material.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of international guidelines.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements
Labeling according to EU guidelines:

The product has been classified and marked in accordance with directives on hazardous materials.

Code letter and hazard designation of product:


Toxic
 Oxidizing
 Dangerous for the environment

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Product Name: 5% Chromic Acid**Hazard-determining components of labeling:**

chromium (VI) trioxide

Risk phrases:

- 45 May cause cancer.
 46 May cause heritable genetic damage.
 9 Explosive when mixed with combustible material.
 21/22 Also harmful in contact with skin and if swallowed.
 23 Also toxic by inhalation.
 34 Causes burns.
 37 Irritating to respiratory system.
 42/43 May cause sensitisation by inhalation and skin contact.
 48/20 Also harmful: danger of serious damage to health by prolonged exposure through inhalation.
 62 Possible risk of impaired fertility.
 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

- 53 Avoid exposure - obtain special instructions before use.
 1/2 Keep locked up and out of the reach of children.
 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Classification system:**NFPA ratings (scale 0 - 4)**

Health = 2

Fire = 0

Reactivity = 0

The substance possesses oxidizing properties.






HMIS-ratings (scale 0 - 4)

Health = 2

Fire = 0

Reactivity = 0

Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**3 Composition****Chemical characterization: Mixtures****Description:** Mixture of the substances listed below with nonhazardous additions.**Dangerous components:**

| | | |
|-------------------|---|----|
| CAS: 1333-82-0 | chromium (VI) trioxide | 5% |
| EINECS: 215-607-8 |  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, H361; STOT RE 1, H372;  Skin Corr. 1A, H314;  Skin Sens. 1, H317 | |

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| | |
|-------------|------------------------|
| SVHC | |
| 1333-82-0 | chromium (VI) trioxide |

4 First Aid Measures**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 apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed: No further relevant information available.

Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

5 Firefighting Measures**Extinguishing media****Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture: No further relevant information available.

Advice for firefighters

Protective equipment: Mouth respiratory protective device.

6 Accidental Release Measures**Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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Product Name: 5% Chromic Acid**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.

7 Handling and Storage**Handling:****Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires: Keep respiratory protective device available.**Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** Keep receptacle tightly sealed.**Specific end use(s):** No further relevant information available.**8 Exposure Controls/Personal Protection****Additional information about design of technical systems:** No further data; see item 7.**Control parameters****Components with limit values that require monitoring at the workplace:****1333-82-0 chromium (VI) trioxide**

| | |
|-----|--|
| PEL | Short-term value: C 0.1* mg/m ³ *as CrO ₃ |
| REL | 0.001 mg/m ³ as Cr(VI), 10-hr TWA |
| TLV | 0.05 mg/m ³ as Cr |

Additional information: The lists that were valid during the creation were used as basis.**Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

Protective gloves

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.

Eye protection:

Safety glasses

Tightly sealed goggles

9 Physical and Chemical Properties**Information on basic physical and chemical properties****General Information****Appearance**

| | |
|------------------------|-----------------|
| Form: | Fluid |
| Color: | Orange |
| Odor: | Odorless |
| Odor threshold: | Not determined. |

pH-value: Not determined.

Change in condition

| | |
|-------------------------------------|---------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 0°C (32 °F) |

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Explosive when mixed with combustible material.

Explosion limits:

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

Vapor pressure at 20°C (68 °F): 23 hPa (17 mm Hg)

Density at 20°C (68 °F): 1.09 g/cm³ (9.096 lbs/gal)

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Fully miscible.

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| | |
|---|--|
| Segregation coefficient (n-octanol/water): | Not determined. |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| Other information: | No further relevant information available. |

10 Stability and Reactivity

Reactivity:**Chemical stability:****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**Possibility of hazardous reactions:** No dangerous reactions known.**Conditions to avoid:** No further relevant information available.**Incompatible materials:** No further relevant information available.**Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicology Information

Information on toxicological effects**Acute toxicity:****LD/LC50 values that are relevant for classification:****1333-82-0 chromium (VI) trioxide**

| | | |
|------|------|----------------|
| Oral | LD50 | 80 mg/kg (rat) |
|------|------|----------------|

Primary irritant effect:**On the skin:** Caustic effect on skin and mucous membranes.**On the eye:** Strong caustic effect.**Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Harmful

Corrosive

Irritant

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.

Carcinogenic categories**IARC (International Agency for Research on Cancer)**

1333-82-0 chromium (VI) trioxide

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NTP (National Toxicology Program)

1333-82-0 chromium (VI) trioxide

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12 Ecological Information

Toxicity:**Aquatic toxicity:** No further relevant information available.**Persistence and degradability:** No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential:** No further relevant information available.**Mobility in soil:** No further relevant information available.**Ecotoxicological effects:****Remark:** Toxic for fish**Additional ecological information:****General notes:**

Water hazard class 3 (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 bodies of water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects:** No further relevant information available.

13 Disposal Considerations

Uncleaned packagings:**Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

| | |
|---|-----------------|
| UN-Number DOT, ADR, ADN, IMDG, IATA | Void |
| UN proper shipping name DOT, ADR, ADN, IMDG, IATA | Void |
| Transport hazard class(es) DOT, ADR, ADN, IMDG, IATA Class | Void |
| Packing group DOT, ADR, IMDG, IATA | Void |
| Environmental hazards Marine pollutant: | No |
| Special precautions for user: | Not applicable. |

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| | |
|---|-----------------|
| Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | Not applicable. |
|---|-----------------|

| | |
|-------------------------------|---|
| UN "Model Regulation": | - |
|-------------------------------|---|

15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
SARA

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65**Chemicals known to cause cancer:**

None of the ingredients is listed.

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)**

None of the ingredients are listed.

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

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

Hazard symbols:

Toxic
Oxidizing
Dangerous for the environment

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- 63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.

National regulations:**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.

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

16 Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Department issuing MSDS: Regulatory Department

Contact: Phone (800) 860-4073

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

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

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HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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