Section 1. Identification

1.1 Product identifier

Product name: Sodium Chromate 10 percent
Part no.: AR176, AR376
Validation date: 1/16/2019

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

Material uses: Laboratory use
Container type: Dispenser Pack
AR176 // Sodium Chromate 10 percent // Artisan Grocott's Methenamine Silver Stain Kit // 65 mL and 115 mL
AR376 // Sodium Chromate 10 percent // Artisan Grocott's Methenamine Silver Eosin Stain Kit // 65 mL and 115 mL
Reference number: SDS056

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer: Dako North America, Inc.
6392 Via Real
Carpinteria, California 93013
United States
Tel: (805) 566-6655
www.Agilent.com

e-mail address of person responsible for this SDS: SDS@Agilent.com

1.4 Emergency telephone number

In case of emergency: CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture:

H302 ACUTE TOXICITY (oral) - Category 4
H311 ACUTE TOXICITY (dermal) - Category 3
H331 ACUTE TOXICITY (inhalation) - Category 3
H314 SKIN CORROSION - Category 1B
H318 SERIOUS EYE DAMAGE - Category 1
H334 RESPIRATORY SENSITIZATION - Category 1
H317 SKIN SENSITIZATION - Category 1
H340 GERM CELL MUTAGENICITY - Category 1
H350 CARCINOGENICITY - Category 1B
H360 TOXIC TO REPRODUCTION (Fertility) - Category 1B
H360 TOXIC TO REPRODUCTION (Unborn child) - Category 1B
H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood, kidneys, liver, lungs) - Category 1
H411 AQUATIC HAZARD (LONG-TERM) - Category 2

Date of issue: 01/16/2019
Section 2. Hazards identification

Hazard pictograms:

- Danger symbol
- No entry symbol
- Warning symbol
- Radiation symbol

Signal word: Danger

Hazard statements:
- P311 + H331 - Toxic in contact with skin or if inhaled.
- H302 - Harmful if swallowed.
- 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.
- H360 - May damage fertility or the unborn child.
- H372 - Causes damage to organs through prolonged or repeated exposure. (blood, kidneys, liver, lungs)
- H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention:
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
- P284 - Wear respiratory protection.
- P271 - Use only outdoors or in a well-ventilated area.
- P273 - Avoid release to the environment.
- P260 - Do not breathe vapor.
- P270 - Do not eat, drink or smoke when using this product.
- P264 - Wash hands thoroughly after handling.
- P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.

Response:
- P391 - Collect spillage.
- P314 - Get medical attention if you feel unwell.
- P308 + P313 - IF exposed or concerned: Get medical attention.
- P304 + P341 (OSHA) + P310 - IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
- P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or physician.
- P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
- P302 + P361 + P364 + P352 + P312 + P363 - IF ON SKIN: Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. Wash contaminated clothing before reuse.
- P333 + P313 - If skin irritation or rash occurs: Get medical attention.
- P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage:
- P405 - Store locked up.

Disposal:
- P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
- Do not taste or swallow. Wash thoroughly after handling.

2.3 Other hazards

Date of issue: 01/16/2019
Section 2. Hazards identification

Hazards not otherwise classified: Causes digestive tract burns.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>≥10 - &lt;25</td>
<td>10034-82-9</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.

Skin contact: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.

Inhalation: Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact: Causes severe burns. Toxic in contact with skin. May cause an allergic skin reaction.

Date of issue: 01/16/2019
## Section 4. First aid measures

### Ingestion
Harmful if swallowed. Corrosive to the digestive tract. Causes burns.

### Over-exposure signs/symptoms

#### Eye contact
Adverse symptoms may include the following:
- pain
- watering
- redness

#### Inhalation
Adverse symptoms may include the following:
- wheezing and breathing difficulties
- asthma
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

#### Skin contact
Adverse symptoms may include the following:
- pain or irritation
- redness
- blistering may occur
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

#### Ingestion
Adverse symptoms may include the following:
- stomach pains
- reduced fetal weight
- increase in fetal deaths
- skeletal malformations

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

#### Notes to physician
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### Specific treatments
No specific treatment.

#### Protection of first-aiders
No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media
Use an extinguishing agent suitable for the surrounding fire.

#### Unsuitable extinguishing media
None known.

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

#### Specific hazards arising from the chemical
In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

#### Hazardous thermal decomposition products
Decomposition products may include the following materials:
- metal oxide/oxides

Date of issue: 01/16/2019
Section 5. Fire-fighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities: Specific storage conditions: Please consult the label.
Section 7. Handling and storage

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)
Recommendations: Industrial applications, Professional applications.
Industrial sector specific solutions: Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>ACGIH TLV (United States, 3/2018). TWA: 0.0002 mg/m³, (measured as Cr) 8 hours. Form: Inhalable fraction STEL: 0.0005 mg/m³, (measured as Cr) 15 minutes. Form: Inhalable fraction NIOSH REL (United States, 10/2016). TWA: 0.0002 mg/m³, (as CR) 8 hours. OSHA PEL (United States, 5/2018). TWA: 0.005 mg/m³, (as Cr) 8 hours. OSHA PEL 1989 (United States, 3/1989). CEIL: 0.1 mg/m³, (as CrO3) OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Date of issue: 01/16/2019
Section 8. Exposure controls/personal protection

Skin protection

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state: Liquid. [Clear.]
Color: Yellow.
Odor: Odorless.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: Not available.
Flash point: Not available.
Evaporation rate: Not available.
Flammability (solid, gas): Not applicable.
Lower and upper explosive (flammable) limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Density: 1 g/cm³ [20°C (68°F)]
Solubility: Soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Section 10. Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: No specific data.

10.5 Incompatible materials: May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>101 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>+</td>
<td>1</td>
<td>Known to be a human carcinogen.</td>
</tr>
</tbody>
</table>

Reproductive toxicity

Conclusion/Summary: Not available.

Teratogenicity

Conclusion/Summary: Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>Category 1</td>
<td>Not determined</td>
<td>blood, kidneys, liver and lungs</td>
</tr>
</tbody>
</table>

Aspiration hazard

Date of issue: 01/16/2019
Section 11. Toxicological information

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

**Eye contact**
- Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Causes severe burns. Toxic in contact with skin. May cause an allergic skin reaction.

**Inhalation**
- Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin contact**
- Causes severe burns. Toxic in contact with skin. May cause an allergic skin reaction.

**Ingestion**
- Harmful if swallowed. Corrosive to the digestive tract. Causes burns.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**
- Adverse symptoms may include the following:
  - Pain
  - Watering
  - Redness

**Inhalation**
- Adverse symptoms may include the following:
  - Wheezing and breathing difficulties
  - Asthma
  - Reduced fetal weight
  - Increase in fetal deaths
  - Skeletal malformations

**Skin contact**
- Adverse symptoms may include the following:
  - Pain or irritation
  - Redness
  - Blistering may occur
  - Reduced fetal weight
  - Increase in fetal deaths
  - Skeletal malformations

**Ingestion**
- Adverse symptoms may include the following:
  - Stomach pains
  - Reduced fetal weight
  - Increase in fetal deaths
  - Skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Long term exposure**

- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

**Potential chronic health effects**

- **General**: Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- **Carcinogenicity**: May cause cancer. Risk of cancer depends on duration and level of exposure.
- **Mutagenicity**: May cause genetic defects.
- **Teratogenicity**: May damage the unborn child.
- **Developmental effects**: No known significant effects or critical hazards.
Section 11. Toxicological information

Fertility effects: May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapors) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chromate 10 percent</td>
<td>694.4</td>
<td>701.4</td>
<td>N/A</td>
<td>3.5</td>
<td>N/A</td>
</tr>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>100</td>
<td>101</td>
<td>N/A</td>
<td>0.5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

12.1 Toxicity
Not available.

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient (K_{OC}): Not available.

12.5 Other adverse effects
No known significant effects or critical hazards.

Section 13. Disposal considerations

13.1 Waste treatment methods
Disposal methods:
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Section 13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT number</th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN2922</td>
<td>CORROSIVE LIQUID, TOXIC, N. O.S. (Chromic acid (H2CrO4), disodium salt, tetrahydrate)</td>
<td>LIQUIDO CORROSIVO, TOXICO, N.E.P. (Chromic acid (H2CrO4), disodium salt, tetrahydrate)</td>
<td>CORROSIVE LIQUID, TOXIC, N. O.S. (Chromic acid (H2CrO4), disodium salt, tetrahydrate)</td>
<td>CORROSIVE LIQUID, TOXIC, N. O.S. (Chromic acid (H2CrO4), disodium salt, tetrahydrate)</td>
<td>UN2922</td>
</tr>
</tbody>
</table>

Transport hazard class(es) 8 (6.1) 8 (6.1) 8 (6.1) 8 (6.1) 8 (6.1)

Packing group III III III III III

Environmental hazards No. Yes. Yes. Yes. Yes. The environmentally hazardous substance mark is not required.

Additional information

If shipped as part of a kit "UN3316 (Chemical kit), Class 9, PG II" can be used. Precondition: UN3316 must be allowed for the remaining vials in same kit too.

DOT Classification

: **Limited quantity** Yes.
  : **Quantity limitation** Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.
  : **Special provisions** IB3, T7, TP1, TP28

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8), 2.26-2.36 (Class 6), 2.7 (Marine pollutant mark).
  The marine pollutant mark is not required when transported by road or rail.
  : ** Explosive Limit and Limited Quantity Index** 5
  : **Passenger Carrying Road or Rail Index** 5
  : **Special provisions** 16

Date of issue : 01/16/2019
**Section 14. Transport information**

**Mexico Classification**

: Special provisions 223, 274

**IMDG**

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. Emergency schedules F-A, S-B

**Special provisions** 223, 274

**IATA**


**Special precautions for user**

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code**

: Not available.

**Section 15. Regulatory information**

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

**U.S. Federal regulations**

: TSCA 6 final risk management: Chromic acid (H2CrO4), disodium salt, tetrahydrate

: TSCA 8(a) CDR Exempt/Partial exemption: Not determined

: TSCA 12(b) annual export notification: Chromic acid (H2CrO4), disodium salt, tetrahydrate

: Clean Water Act (CWA) 307: Chromic acid (H2CrO4), disodium salt, tetrahydrate

: Clean Water Act (CWA) 311: Chromic acid (H2CrO4), disodium salt, tetrahydrate

: Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)

: Listed

: Not listed

: Not listed

: Not listed

: Not listed

: Not listed

: SARA 302/304

: Composition/information on ingredients

: No products were found.

: SARA 304 RQ

: Not applicable.

: SARA 311/312

**Date of issue:** 01/16/2019
Section 15. Regulatory information

Classification

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Chromic acid (H2CrO4), disodium salt, tetrahydrate | ≥10 - <25 | ACUTE TOXICITY (oral) - Category 3  
| | | ACUTE TOXICITY (dermal) - Category 2  
| | | ACUTE TOXICITY (inhalation) - Category 2  
| | | SKIN CORROSION - Category 1B  
| | | SERIOUS EYE DAMAGE - Category 1  
| | | RESPIRATORY SENSITIZATION - Category 1  
| | | SKIN SENSITIZATION - Category 1  
| | | GERM CELL MUTAGENICITY - Category 1B  
| | | CARCINOGENICITY - Category 1B  
| | | TOXIC TO REPRODUCTION (Fertility) - Category 1B  
| | | TOXIC TO REPRODUCTION (Unborn child) - Category 1B  
| | | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood, kidneys, liver, lungs) - Category 1  
| | | HNOC - Corrosive to digestive tract  

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>
| Chromic acid (H2CrO4), disodium salt, tetrahydrate | ≥10 - <25 | ACUTE TOXICITY (oral) - Category 3  
| | | ACUTE TOXICITY (dermal) - Category 2  
| | | ACUTE TOXICITY (inhalation) - Category 2  
| | | SKIN CORROSION - Category 1B  
| | | SERIOUS EYE DAMAGE - Category 1  
| | | RESPIRATORY SENSITIZATION - Category 1  
| | | SKIN SENSITIZATION - Category 1  
| | | GERM CELL MUTAGENICITY - Category 1B  
| | | CARCINOGENICITY - Category 1B  
| | | TOXIC TO REPRODUCTION (Fertility) - Category 1B  
| | | TOXIC TO REPRODUCTION (Unborn child) - Category 1B  
| | | SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood, kidneys, liver, lungs) - Category 1  
| | | HNOC - Corrosive to digestive tract  

SARA 313

<table>
<thead>
<tr>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid (H2CrO4), disodium salt, tetrahydrate</td>
<td>10034-82-9</td>
<td>≥10 - &lt;25</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts: None of the components are listed.

New York: None of the components are listed.

New Jersey: The following components are listed: CHROMIUM COMPOUNDS

Pennsylvania: The following components are listed: CHROMIUM COMPOUNDS

California Prop. 65

WARNING: This product can expose you to Chromium (hexavalent compounds), which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium (hexavalent compounds)</td>
<td>Yes.</td>
<td>-</td>
</tr>
</tbody>
</table>

International regulations

Date of issue: 01/16/2019
Section 15. Regulatory information

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Montreal Protocol
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
European Union : All components are listed or exempted.
Japan : Japan inventory (ENCS): All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.
United States : All components are listed or exempted.
Viet Nam : Not determined.

Section 16. Other information

History

Date of issue : 01/16/2019
Date of previous issue : 08/01/2017
Version : 4
Key to abbreviations
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
N/A = Not available
UN = United Nations

Procedure used to derive the classification
### Section 16. Other information

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUTE TOXICITY (oral) - Category 4</td>
<td>Calculation method</td>
</tr>
<tr>
<td>ACUTE TOXICITY (dermal) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>ACUTE TOXICITY (inhalation) - Category 3</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SKIN CORROSION - Category 1B</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SERIOUS EYE DAMAGE - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>RESPIRATORY SENSITIZATION - Category 1</td>
<td>Calculation method</td>
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<tr>
<td>SKIN SENSITIZATION - Category 1</td>
<td>Calculation method</td>
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<td>GERM CELL MUTAGENICITY - Category 1</td>
<td>Calculation method</td>
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<tr>
<td>CARCINOGENICITY - Category 1B</td>
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<tr>
<td>TOXIC TO REPRODUCTION (Fertility) - Category 1B</td>
<td>Calculation method</td>
</tr>
<tr>
<td>TOXIC TO REPRODUCTION (Unborn child) - Category 1B</td>
<td>Calculation method</td>
</tr>
<tr>
<td>SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood, kidneys, liver, lungs) - Category 1</td>
<td>Calculation method</td>
</tr>
<tr>
<td>AQUATIC HAZARD (LONG-TERM) - Category 2</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

> Indicates information that has changed from previously issued version.

**Notice to reader**

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