

Safety Data Sheet
Olive Drab Chomate Part 1

SECTION 1: Identification

1.1 Product identifier

Product name	Olive Drab Chomate Part 1
Product number	OD1
Brand	Caswell

1.4 Supplier's details

Name	Caswell Inc
Address	7696 Route 31 Lyons, NY 14489 USA
Telephone	315 946 1213
Fax	315 946 4456
email	sales@caswellplating.com

1.5 Emergency phone number(s)

Office Hours (9-4ET): 315 946 1213
24 Hour: CHEMTEL US# 1-800-255-3924 Intl# +01-813-248-0585

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

- Acute toxicity, oral (chapter 3.1), Cat. 3
- Acute toxicity, dermal (chapter 3.1), Cat. 1
- Acute toxicity, inhalation (chapter 3.1), Cat. 1
- Skin corrosion/irritation (chapter 3.2), Cat. 1
- Sensitization, respiratory (chapter 3.4), Cat. 1
- Sensitization, skin (chapter 3.4), Cat. 1
- Carcinogenicity (chapter 3.6), Cat. 1
- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

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Hazard statement(s)

H301	Toxic if swallowed
H310	Fatal 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
H350	May cause cancer
H410	Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P321	Specific treatment (see ... on this label).
P330	Rinse mouth.
P405	Store locked up.
P501	Dispose of contents/container to ...
P262	Do not get in eyes, on skin, or on clothing.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/...
P310	Immediately call a POISON CENTER/doctor/...
P361+P364	Take off immediately all contaminated clothing and wash it before reuse.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P284	[In case of inadequate ventilation] wear respiratory protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P320	Specific treatment is urgent (see ... on this label).
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363	Wash contaminated clothing before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...
P272	Contaminated work clothing should not be allowed out of the workplace.
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P273	Avoid release to the environment.
P391	Collect spillage.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Chromic acid solution

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Concentration 15 - 30 %
CAS no. 7738-94-5

2. Sodium nitrate

Concentration 3 - 7 %
CAS no. 7631-99-4

3. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration 82 - 82 %
CAS no. 7732-18-5

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Material may cause death if ingested in moderate amounts and left untreated.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician
In case of eye contact	Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Drink large quantities of water or milk. Follow with milk of magnesia, beaten eggs or vegetable oil,. Do not induce vomiting. Contact physician immediately.
Personal protective equipment for first-aid responders	See section 8

4.2 Most important symptoms/effects, acute and delayed

Material may cause death if ingested in moderate amounts and left untreated.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Spray foams on large fires or CO₂ on smaller fires. Water may be used but runoff must be prevented from entering waterways or environmental damage will occur.

5.2 Specific hazards arising from the chemical

Do not allow to enter water ways.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures

Refer to section 8 for PPE.

6.2 Environmental precautions

Do not allow to enter waterways. If waterways are reached, call US Coast Guard Nation Response Center (1-800-424-8802). If environment is threatened, addition of metabisulfite then treatment with a base by experienced personnel should be used as a last resort.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid all contact. Wear PPE at all times. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.2 Conditions for safe storage, including any incompatibilities

Keep from freezing. Store away from heat source. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Chromic acid solution (CAS: 7738-94-5)

TLV® (Oral): .05 mg/m³ (OSHA)

2. Chromic acid solution (CAS: 7738-94-5)

STEL (Oral): C 0.1 mg/m³ (OSHA)

8.2 Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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Respiratory protection

NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Thermal hazards

No Data Available

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form	Red/Orange Liquid
Odor	Slight
Odor threshold	No Data Available
pH	3.6-6.6
Melting point/freezing point	No Data Available
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	Slower than n-butyl alcohol
Flammability (solid, gas)	No Data Available
Upper/lower flammability limits	No Data Available
Upper/lower explosive limits	No Data Available
Vapor pressure	No Data Available
Vapor density	Heavier Than Air
Relative density	1.330
Solubility(ies)	Complete In Water
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidizing properties	No Data Available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not Reactive

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Will not occur when used according to directions.

10.4 Conditions to avoid

Always mix slowly at first. Concentrated material can react violently when mixed with many other materials.

10.5 Incompatible materials

Reacts with bases, metals such as iron and zinc and easily oxidized materials.

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10.6 Hazardous decomposition products

Oxides of Chrome

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral LD50: 51.1 ppm Rat

Eyes: 124.4 ppm Rabbit

Skin corrosion/irritation

Extremely corrosive to skin

Serious eye damage/irritation

Extremely corrosive to eyes. Serious eye damage will occur

Respiratory or skin sensitization

Will cause corrosion and irritation of respiratory tract if inhaled.

Germ cell mutagenicity

No Data Available. Chromium Trioxide has been known to alter genetic material.

Carcinogenicity

Known Cancer Hazard

Reproductive toxicity

Chromium Trioxide has been known to cause reproductive issues.

STOT-single exposure

No Data Available

STOT-repeated exposure

No Data Available

Aspiration hazard

No Data Available

SECTION 12: Ecological information

Toxicity

No Data Available. Chromium Trioxide is extremely hazardous to the environment with long term adverse effects.

Persistence and degradability

No Data Available

Bioaccumulative potential

No Data Available

Mobility in soil

No Data Available

Results of PBT and vPvB assessment

No Data Available

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Other adverse effects

No Data Available

SECTION 13: Disposal considerations

Disposal of the product

Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

Disposal of contaminated packaging

Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

Waste treatment

No Data Available

Sewage disposal

No Data Available

SECTION 14: Transport information

DOT (US)

UN Number: UN3264

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, NOS (contains chromium compound, nitrate salt)

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

Quantities under 1L may be shipped within the US, by Ground, as LTD QTY.

IMDG

UN Number: UN3264

Class: 8

Packing Group: II

EMS Number:

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, NOS (contains chromium compound, nitrate salt)

IATA

UN Number: UN3264

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, Acidic, Inorganic, NOS (contains chromium compound, nitrate salt)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Massachusetts Right To Know Components

Chemical name: Chromic acid

CAS number: 7738-94-5

New Jersey Right To Know Components

Common name: CHROMIC ACID

CAS number: 7738-94-5

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Pennsylvania Right To Know Components

Chemical name: Chromic acid

CAS number: 7738-94-5

California Prop. 65 components

Chemical name: Chromic acid

CAS number: 7738-94-5

02/27/1987 - Cancer

12/19/2008 - Developmental, female, male

Pennsylvania Right To Know Components

Chemical name: Nitric acid, sodium salt

CAS number: 7631-99-4

California Prop. 65 components

Chemical name: Chromic acid solution

CAS number: 7738-94-5

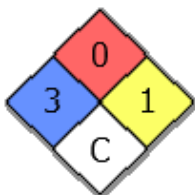
02/27/1987 - Cancer

12/19/2008 - Developmental, female, male

HMIS Rating

Olive Drab Chromate Part 1	
HEALTH	* 3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	K

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Caswell Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Caswell Inc has been advised of the possibility of such damages.



CASWELL INC

Safety Data Sheet Olive Drab Chromate Part 2

SECTION 1: Identification

1.1 Product identifier

Product name	Olive Drab Chromate Part 2
Product number	OD2
Brand	Caswell

1.4 Supplier's details

Name	Caswell Inc
Address	7696 Route 31 Lyons NY 14489 USA
Telephone	315 946 1213
Fax	315 946 4456
email	sales@caswellplating.com

1.5 Emergency phone number(s)

Office Hours (9-4ET): 315 946 1213
24 Hour: CHEMTEL US# 1-800-255-3924 Intl# +01-813-248-0585

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

- Hazardous to the aquatic environment - long-term hazard (chapter 4.1), Cat. 1

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Warning

Safety Data Sheet

Olive Drab Chromate Part 2

Hazard statement(s)

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P273 Avoid release to the environment.
P501 Dispose of contents/container to ...
P391 Collect spillage.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. FORMIC ACID

Concentration 25 - 35 %
EC no. 200-579-1
CAS no. 64-18-6
Index no. 607-001-00-0

- Skin corrosion/irritation (chapter 3.2), Cat. 1A

H314 Causes severe skin burns and eye damage

2. WATER OR OTHER NON-REPORTABLE INGREDIENTS

Concentration 75 - 85 %
CAS no. 7732-18-5

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact	Wash off with soap and plenty of water. Get medical attention if symptoms occur.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
If swallowed	Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Personal protective equipment for first-aid responders	See section 8

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- 4.2 Most important symptoms/effects, acute and delayed**
No Data Available

SECTION 5: Fire-fighting measures

- 5.1 Suitable extinguishing media**
Use extinguishing media appropriate for surrounding fire.
- 5.2 Specific hazards arising from the chemical**
No Data Available
- 5.3 Special protective actions for fire-fighters**
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
See section 8 for PPE
- 6.2 Environmental precautions**
Very toxic to environment. Do not allow product or runoff to enter waterways.
- 6.3 Methods and materials for containment and cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- 7.2 Conditions for safe storage, including any incompatibilities**
No Data Available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Formic acid (CAS: 64-18-6)

PEL (Inhalation): 5 ppm (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 9 mg/m³ (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 5 ppm, (ST) 10 ppm (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 5 ppm (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls

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General industrial hygiene practice.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Wear chemical resistant gloves and clothing.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Thermal hazards

No Data Available

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Clear Liquid
Odor	Sharp
Odor threshold	No Data Available
pH	< 3
Melting point/freezing point	No Data Available
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	Slower than n-butyl alcohol
Flammability (solid, gas)	No Data Available
Upper/lower flammability limits	No Data Available
Upper/lower explosive limits	No Data Available
Vapor pressure	No Data Available
Vapor density	Heavier Than Air
Relative density	1.122
Solubility(ies)	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available

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Olive Drab Chromate Part 2

Oxidizing properties

No Data Available

SECTION 10: Stability and reactivity

10.1 Reactivity

Not Reactive

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Mix material slowly at first to avoid reaction.

10.4 Conditions to avoid

Reacts with bases and metals such as iron or zinc.

10.5 Incompatible materials

Reacts with bases and metals such as iron or zinc.

10.6 Hazardous decomposition products

No Data Available

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No Data Available

Skin corrosion/irritation

No Data Available

Serious eye damage/irritation

No Data Available

Respiratory or skin sensitization

No Data Available

Germ cell mutagenicity

No Data Available

Carcinogenicity

No Data Available

Reproductive toxicity

No Data Available

STOT-single exposure

No Data Available

STOT-repeated exposure

No Data Available

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Aspiration hazard

No Data Available

SECTION 12: Ecological information

Toxicity

No Data Available. Material is toxic to the environment with long lasting effects. Avoid release.

Persistence and degradability

No Data Available

Bioaccumulative potential

No Data Available

Mobility in soil

No Data Available

Results of PBT and vPvB assessment

No Data Available

SECTION 13: Disposal considerations

Disposal of the product

Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

Disposal of contaminated packaging

Consult appropriate federal and local regulations for disposal. Empty containers are subject to the same regulations.

Waste treatment

No Data Available

Sewage disposal

No Data Available

SECTION 14: Transport information

DOT (US)

UN Number: UN3265

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, Acidic, Organic NOS (Methanoic Acid)

Reportable quantity (RQ):

Marine pollutant:

Poison inhalation hazard:

IMDG

UN Number: UN3265

Class: 8

Packing Group: II

EMS Number:

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Proper Shipping Name: Corrosive Liquid, Acidic, Organic NOS (Methanoic Acid)

IATA

UN Number: UN3265

Class: 8

Packing Group: II

Proper Shipping Name: Corrosive Liquid, Acidic, Organic NOS (Methanoic Acid)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Massachusetts Right To Know Components

Chemical name: Formic acid

CAS number: 64-18-6

New Jersey Right To Know Components

Common name: FORMIC ACID

CAS number: 64-18-6

Pennsylvania Right To Know Components

Chemical name: Formic acid

CAS number: 64-18-6

HMIS Rating

Olive Drab Chromate Part 2	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	H

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Caswell Inc be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Caswell Inc has been advised of the possibility of such damages.