# MATRIX #3
## Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 04/04/2019

## SECTION 1: Identification

1.1. **Identification**
- **Product form**: Mixture
- **Product name**: MATRIX #3

1.2. **Recommended use and restrictions on use**
- **Use of the substance/mixture**: Biocidal products (e.g. Disinfectants, pest control.)
- **Recommended use**: Biocidal products (e.g. Disinfectants, pest control)

1.3. **Supplier**
- **Zip-Chem Products**
  - 400 Jarvis Drive
  - Morgan Hill, CA 95037 - United States
  - T 408-782-2335 - F 408-782-6304
  - 4info@zipchem.com

1.4. **Emergency telephone number**
- **Emergency number**: 1-800-424-9300

## SECTION 2: Hazard(s) identification

2.1. **Classification of the substance or mixture**
- **GHS US classification**
  - Acute toxicity (oral) Category 4: H302 - Harmful if swallowed
  - Acute toxicity (dermal) Category 3: H311 - Toxic in contact with skin
  - Skin corrosion/irritation Category 2: H315 - Causes skin irritation
  - Hazardous to the aquatic environment - Acute Hazard Category 1: H400 - Very toxic to aquatic life
  - Hazardous to the aquatic environment - Chronic Hazard Category 2: H411 - Toxic to aquatic life with long lasting effects

2.2. **GHS Label elements, including precautionary statements**
- **GHS US labeling**
  - **Hazard pictograms (GHS US)**: 
    - 
  - **Signal word (GHS US)**: Danger
  - **Hazard statements (GHS US)**: 
    - H302 - Harmful if swallowed
    - H311 - Toxic in contact with skin
    - H315 - Causes skin irritation
    - H400 - Very toxic to aquatic life
    - H411 - Toxic to aquatic life with long lasting effects
  - **Precautionary statements (GHS US)**: 
    - P264 - Wash hands, forearms and face thoroughly after handling.
    - P270 - Do not eat, drink or smoke when using this product.
    - P273 - Avoid release to the environment.
    - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
    - P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
    - P302+P352 - If on skin: Wash with plenty of water.
    - P312 - Call a poison center or doctor if you feel unwell.
    - P321 - Specific treatment (see supplemental first aid instruction on this label).
    - P322 - Specific treatment (see supplemental first aid instruction on this label)
    - P330 - Rinse mouth.
    - P332+P313 - If skin irritation occurs: Get medical advice/attention.
    - P361+P364 - Take off immediately all contaminated clothing and wash it before reuse.
    - P362+P364 - Take off contaminated clothing and wash it before reuse.
    - P391 - Collect spillage.
    - P405 - Store locked up.
    - P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. **Other hazards which do not result in classification**
- No additional information available
SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>TETRASODIUM ETHYLENE DIAMINE TETRAACETATE</td>
<td>(CAS-No.) 64-02-8</td>
<td>0-5</td>
<td>Eye Dam. 1, H318</td>
</tr>
<tr>
<td>ETHANOL</td>
<td>(CAS-No.) 64-17-5</td>
<td>0-5</td>
<td>Flam. Liq. 2, H225 Carc. 1A, H350</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory irritation. May cause shortness of breath, tightness of the chest, a sore throat and cough.
Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Serious damage to eyes. Eye irritation.
Symptoms/effects after ingestion : Harmful if swallowed. Ingestion may cause nausea and vomiting.

4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

5.2. Specific hazards arising from the chemical
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders
Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment.
Hygiene measures: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in a well-ventilated place. Keep cool.
Incompatible materials: Heat sources.
Storage area: Store away from heat. Store in a well-ventilated place.
Special rules on packaging: Keep only in original container. Store in a closed container.
Packaging materials: Keep only in the original container in a cool, well-ventilated place away from combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Material</th>
<th>Control parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATRIX #3</td>
<td>No additional information available</td>
</tr>
<tr>
<td>ETHANOL (64-17-5)</td>
<td>No additional information available</td>
</tr>
<tr>
<td>TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (64-02-8)</td>
<td>No additional information available</td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls
Appropriate engineering controls: Ensure good ventilation of the work station.
Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Gloves. Protective clothing. Safety glasses.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):

03/05/2020 EN (English US)
SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- **Physical state**: Liquid
- **Color**: red
- **Odor**: Pleasant
- **Odor threshold**: No data available
- **pH**: 7
- **Melting point**: No data available.
- **Freezing point**: No data available
- **Boiling point**: No data available
- **Flash point**: No data available
- **Relative evaporation rate (butyl acetate=1)**: Moderate
- **Flammability (solid, gas)**: Not applicable.
- **Vapor pressure**: ≤ 0.01
- **Relative vapor density at 20 °C**: 1.0
- **Relative density**: 1
- **Solubility**: No data available
- **Partition coefficient n-octanol/water (Log Pow)**: No data available
- **Auto-ignition temperature**: No data available.
- **Decomposition temperature**: No data available
- **Viscosity, kinematic**: No data available
- **Viscosity, dynamic**: No data available
- **Explosion limits**: No data available
- **Explosive properties**: No data available
- **Oxidizing properties**: No data available

9.2. Other information

- **VOC content**: 3

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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 (oral)**: Harmful if swallowed.
- **Acute toxicity (dermal)**: Toxic in contact with skin.
- **Acute toxicity (inhalation)**: Not classified

<table>
<thead>
<tr>
<th>Source</th>
<th>Toxicity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATE US (oral)</td>
<td>500 mg/kg body weight</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
<td>300 mg/kg body weight</td>
</tr>
</tbody>
</table>

**TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (64-02-8)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Toxicity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 2000 mg/kg (Rat. Oral)</td>
</tr>
</tbody>
</table>
### Skin corrosion/irritation
- Causes skin irritation.
- pH: 7

### Serious eye damage/irritation
- Not classified
- Causes serious eye irritation
- pH: 7

### Respiratory or skin sensitization
- Not classified
- May cause an allergic skin reaction

### Germ cell mutagenicity
- Not classified

### Carcinogenicity
- Not classified

#### ETHANOL (64-17-5)
- IARC group: 1 - Carcinogenic to humans
- Reproductive toxicity: Not classified
- STOT-single exposure: Not classified
- STOT-repeated exposure: Not classified
- Aspiration hazard: Not classified
- Viscosity, kinematic: No data available
- Symptoms/effects after inhalation: May cause respiratory irritation. May cause shortness of breath, tightness of the chest, a sore throat and cough.
- Symptoms/effects after skin contact: Irritation.
- Symptoms/effects after eye contact: Serious damage to eyes. Eye irritation.
- Symptoms/effects after ingestion: Harmful if swallowed. Ingestion may cause nausea and vomiting.

### SECTION 12: Ecological information

**12.1. Toxicity**
- Ecology - general: Toxic to aquatic life with long lasting effects.

#### TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (64-02-8)
- LC50 fish 1: 121 mg/l (96 h, Lepomis macrochirus, Literature study, Soft water)
- EC50 Daphnia 1: 625 mg/l (24 h, Daphnia magna, Literature study)

**12.2. Persistence and degradability**

#### MATRIX #3
- Persistence and degradability: % biodegradation.

#### TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (64-02-8)
- Persistence and degradability: Not readily biodegradable in water.
- Biochemical oxygen demand (BOD): < 0.002 g O₂/g substance
- Chemical oxygen demand (COD): 0.54 – 0.58 g O₂/g substance

**12.3. Bioaccumulative potential**

#### TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (64-02-8)
- Partition coefficient n-octanol/water (Log Pow): -2.6
- Bioaccumulative potential: Not bioaccumulative.

**12.4. Mobility in soil**

#### MATRIX #3
- Mobility in soil: Readily absorbed into soil

**12.5. Other adverse effects**
- No additional information available
SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

ETHANOL (64-17-5)

Listed on the Canadian DSL (Domestic Substances List)

TETRASODIUM ETHYLENE DIAMINE TETRAACETATE (64-02-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

National regulations

ETHANOL (64-17-5)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/04/2019
Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapour</th>
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<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
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<tr>
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<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H350</td>
<td>May cause cancer</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
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NFPA health hazard: 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard: 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.

Hazard Rating

Health: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class III B)
Physical: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection: B

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore be construed as guaranteeing any specific property of the product.