1. Product and company identification

Product Name: Oxalic Acid
UN/ID No.: DOT (U.S.): Not Regulated

Supplier: Butler Chemicals, Inc.
3070 E. Ceena CT.
Anaheim, CA. 92806

Print date: September 17, 2018

Responsible name: K.B.

In case of emergency:
HEALTH EMERGENCIES — SPILL EMERGENCIES
CALL INFOTRAC 1(800) 535-5053

Product type: Mixture

2. Hazards identification

Appearance: Transparent
Physical State: Solid
Odor: Odorless

Classification:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Oral Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute Dermal Toxicity</td>
<td>Category 4</td>
</tr>
<tr>
<td>Eye damage</td>
<td>Category 1</td>
</tr>
</tbody>
</table>

Signal Word: Danger

Hazard Statement:
H302 + H312 Harmful if swallowed or in contact with skin
H318 Causes serious eye damage

Precautionary Statements – Preventions
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements – Response
Immediately call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so.
Continue rinsing immediately call a POISON CONTROL or doctor/physician.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a
POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, Rinse mouth, Do not induce vomiting.

Precautionary Statements – Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements – Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxalic acid (Dihydrate)</td>
<td>6153-56-6</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First aid measures

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Immediately call a POISON CENTER or doctor/physician.

Skin contact: If ON SKIN (hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Seek medical attention.

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Do Not Induce Vomiting. IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Drink large quantities of water without delay. Give large quantities of water or milk. Immediately call a POISON CENTER or doctor/physician.

Note to physician Treat symptomatically. Can cause corneal burns

5. Fire-fighting measures

Flash point: None
Lower Explosive Limit: Not relevant
Upper Explosive Limits: Not relevant
Extinguishing Media: Use water spray, Carbon Dioxide, Alcohol Foam or Dry Chemical. Cool Fire-Exposed Container with Water Spray
Unusual fire and expel hazards: As with any finely divided organic solids, dust may be explosive is mixed with air in critical proportions and in the presence of an ignition source.
Special protective equipment for fire-fighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions: Wear protective clothing as described in Section 8 of this safety data sheet.
Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See section 12, Ecological information. See Section 13, Disposal Considerations, for additional information.
Methods for cleaning up: Wear protective equipment. Prevent further spillage if safe to do so. Recover if possible. Sweep or vacuum into closed containers for disposal. Avoid Dust generation. Pick up and transfer to properly labeled containers. Neutralizing agent: Sodium Bicarbonate

7. Handling and storage

Preventions-Handling/Storing: Store in tightly closed container in cool, dry, well ventilated place away from incompatible material. Keep away from food and drink. Avoid skin and eye contact and breathing in dust. Avoid handling which leads to
dust formation. Check regularly for spills. Keep out of reach of children. Wash thoroughly after handling. Empty containers retain residue and can be dangerous.

8. Exposure controls/personal protection
Consult local authorities for acceptable exposure limits.
Engineering Controls
Apply technical measures to comply with the occupational exposure limits. Local exhaust ventilation recommended. Eye wash stations. Showers.

Individual-protection measures, such as personal protective equipment
Eye/Face Protection
Chemical safety goggles &/or face shield
Skin and Body Protection
Rubber gloves, Neoprene, Nitrile
Other protective equipment: Rubber boots, Rubber apron.
Respiratory Protection
Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. Wear NIOSH-approved powered air-purifying respirator and dust and mist filters/supplied air-respirator. Up to 50 mg/m3, wear a full face-piece respirator. Up to 500 mg/m2, wear positive press SCBA. Use local exhaust (corrosion-resistant) to control airborne dusts.

General Hygiene considerations
Observe good industrial hygiene practices and recommended procedures. Wash contaminated clothing before reuse. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke in work areas.

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>None</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>pH</td>
<td>1.3</td>
</tr>
<tr>
<td>Boiling/condensation point</td>
<td>300F – 320F</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>215F, 102C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Radioactivity</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Radioactivity</td>
<td>Not Relevant</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluble 100 G/Liter</td>
</tr>
<tr>
<td>Corrosion rate (IPY)</td>
<td>Unknown</td>
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</table>

10. Stability reactivity

<table>
<thead>
<tr>
<th>Stability</th>
<th>Yes, under normal conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to avoid (Stability)</td>
<td>Excessive heat (215F/102C), Avoid exposure to moisture</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Oxidizing agents, bases, silver, alkali metals, iron and iron compounds, acid chlorides</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon monoxide, carbon dioxide and formic acid may be formed. Fumes may be toxic and irritating.</td>
</tr>
<tr>
<td>Hazardous Poly Occur</td>
<td>No</td>
</tr>
<tr>
<td>Conditions to avoid (Poly)</td>
<td>Not relevant</td>
</tr>
</tbody>
</table>

11. Toxicological information

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are.

Ingestions: Swallowing can result in a severe burning pain of the mouth, throat and stomach followed by profuse vomiting (sometimes bloody). Small doses if oxalate in the body can cause headache, pain and twitching in muscles, and cramps. Larger doses can cause weak and irregular heartbeat, drop in blood pressure and signs of heart failure. Large doses rapidly cause a shock-like state, convulsions, coma and possibly death.

Eye contact: A severe eye irritant. Contamination of eyes can result in permanent injury.
Skin contact: Contact with skin may result in irritation. Solutions of 5% to 10% oxalic acid are irritating to the skin after prolonged exposure and can cause corrosive injury.

Inhalation: Breathing in dust may result in respiratory irritation. Inhaled oxalic acid is readily absorbed into the body and may cause headaches and nausea.

Acute toxicity: Oral LD50 (rat): 475 mg/kg  Dermal LD50 (rabbit): 2000 mg/kg

Chronic effects: Long term exposure can result in kidney stones and stone formation in the urinary tract.

Exposure to this compound can result in systemic effects including kidney damage, muscle twitching, cramps and nervous system complaints.

12. Ecological information

Ecotoxicity Avoid contaminating waterways

13. Disposal considerations

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a license waste contactor. 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. Avoid dispersal of spilled material and runoff and contract with soil, waterways, drains and sewers.

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

14. Transport information

Note: This shipment classification information in the section is meant as a guide to the overall classification of the product. However, transportation classifications may be subjected to change with changes in package size. Consult shipper requirements under I.M.O., I.C.A.O. (I.A.T.A.) and 49 CFR to assure regulatory compliance.

US DOT Information
Shipper Name: Not Applicable
Hazard Class: Not Applicable
UN/NA#: Not applicable
Packing Group: Not Applicable
Required Labels: Not Applicable
RQ Quantity: Not Applicable

15. Regulatory information

California Proposition 65
This product does not contain any Proposition 65 Chemicals

16. Other information

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazards</th>
<th>Flammability</th>
<th>Physical Hazards</th>
<th>Personal Protection</th>
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<tbody>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>B</td>
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</table>

Disclaimer
The information provided in the Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and in not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet