Acid Sulfate Crystals

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Acid Sulfate Crystals
Manufacturer/Supplier Trade name: 
Manufacturer/Supplier Article number: LXSB1685-I
Recommended uses of the product and restrictions on use: Nov 11 2015 12:00AM
Manufacturer Details:
  AquaPhoenix Scientific
  9 Barnhart Drive, Hanover, PA 17331
  (717) 632-1291
Supplier Details:
  Sterilex Corporation
  111 Lake Front Drive Hunt Valley, MD 21030
  (410) 581-8860
Emergency telephone number:
  Emergency Ph: 800-255-3924

SECTION 2: Hazards identification

Classification of the substance or mixture:

- Corrosive
  Serious eye damage, category 1

May form combustible (explosive) dust - air mixtures.
Eye Damage 1.

Signal word: Danger

Hazard statements:
  Causes serious eye damage.

Precautionary statements:
  If medical advice is needed have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Do not eat, drink or smoke when using this product.
  Wear protective gloves/protective clothing/eye protection/face protection.
  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 doctor/physician.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:
SECTION 4: First aid measures

Description of first aid measures

After inhalation:
Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.

After skin contact:
Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.

After eye contact:
Protect unexposed eye. Remove contact lens(es) if able to do so during rinsing. Rinse or flush eye gently with water for at least 30 minutes, lifting upper and lower lids. Seek immediate medical attention (ophthalmologist).

After swallowing:
Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed:

Indication of any immediate medical attention and special treatment needed:
If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:
If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:
Combustion products may include carbon oxides or other toxic vapors. Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment:
Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions):
Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or
recovery container.

Environmental precautions:
Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

Methods and material for containment and cleaning up:
Absorb and containerize for disposal. Avoid generating dust. If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:
Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid generation of dust or fine particulate. Avoid contact with eyes, skin, and clothing. Wash hands after handling. Avoid dispersal of dust in the air.

Conditions for safe storage, including any incompatibilities:
Store in a cool location. Aqueous solutions cannot be stored in aluminum, copper, copper alloys, nickel, carbon steel or zinc containers. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Keep container tightly closed. Prevent dust accumulations to minimize explosion hazard. Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

Control parameters:
7681-38-1, Sodium hydrogen sulfate, ACGIH TLV TWA: 10mg/m3 (inhalable particles).
7681-38-1, Sodium hydrogen sulfate, OSHA PEL TWA: 15 mg/m3 (total dust).
144-55-8, Sodium bicarbonate, ACGIH TLV TWA: 10mg/m3 (inhalable particles).
144-55-8, Sodium bicarbonate, OSHA PEL TWA: 15 mg/m3 (total dust).

Appropriate engineering controls:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Use under a fume hood.

Respiratory protection:
Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

Protection of skin:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection:
Safety glasses with side shields or goggles.
General hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance (physical state, color)</td>
<td>White granules</td>
</tr>
<tr>
<td>Explosion limit lower</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosion limit upper</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Vapor pressure at 20°C</td>
<td>Not determined</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH-value</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting/Freezing point</td>
<td>315°C</td>
</tr>
<tr>
<td>Solubilities</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point (closed cup)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto/Self-ignition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined</td>
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<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density at 20°C</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>2.435</td>
</tr>
<tr>
<td>Viscosity</td>
<td>a. Kinematic: Not determined</td>
</tr>
<tr>
<td></td>
<td>b. Dynamic: Not determined</td>
</tr>
<tr>
<td>Additional property</td>
<td>Hygroscopic</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

Reactivity: Corrosive to aluminum in aqueous solution.

Chemical stability: Moisture sensitive. Heat sensitive. No decomposition if used and stored according to specifications.

Possible hazardous reactions: None

Conditions to avoid: Store away from oxidizing agents, strong acids or bases. Exposure to moisture, excess heat, dust formation, corrosive to aluminum in aqueous solution.


Hazardous decomposition products: Carbon oxides (CO, CO2). Oxides of sulfur.

SECTION 11: Toxicological information

Acute Toxicity: No additional information.
Chronic Toxicity: No additional information.
Skin corrosion/irritation: No additional information.
Serious eye damage/irritation:
Acid Sulfate Crystals

: Classified as eye corrosive. Section 2.

Respiratory or skin sensitization: No additional information.
Carcinogenicity: No additional information.

Germ cell mutagenicity: No additional information.
Reproductive Toxicity: No additional information.
STOT-single and repeated exposure: No additional information.
Additional toxicological information: No additional information.

SECTION 12: Ecological information

Ecotoxicity:
: Fish: LC50 (96h) L. macrochius, 8250-9000 mg/L.
: Crustacea: EC50 (48h) D. magna, 2350 mg/L.

Persistence and degradability:
Readily degradable in the marine environment.

Bioaccumulative potential: No additional information.
Mobility in soil: No additional information.
Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:
Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

SECTION 14: Transport information

US DOT

UN Number:
ADR, ADN, DOT, IMDG, IATA 3260

Limited Quantity Exception: None

Bulk:
RQ (if applicable): None
Proper shipping Name: Corrosive Solid, Acidic, Inorganic, N.O.S., (Sodium Bisulfate).
Hazard Class: 8
Packing Group: III.
Marine Pollutant (if applicable): No additional information.
Comments: None

Non Bulk:
RQ (if applicable): None
Proper shipping Name: Corrosive Solid, Acidic, Inorganic, N.O.S., (Sodium Bisulfate).
Hazard Class: 8
Packing Group: III.
Marine Pollutant (if applicable): No additional information.
Comments: None
SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):
   Acute

SARA Section 313 (Specific toxic chemical listings):
   None of the ingredients are listed.

RCRA (hazardous waste code):
   None of the ingredients are listed.

TSCA (Toxic Substances Control Act):
   All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
   None of the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:
   None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:
   None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:
   None of the ingredients are listed.

Chemicals known to cause developmental toxicity:
   None of the ingredients are listed.

Canada

Canadian Domestic Substances List (DSL):
   All ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 3-0-0
HMIS: 3-0-0
GHS Full Text Phrases: None
Abbreviations and Acronyms:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration (REACH).</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act (USA).</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act (USA).</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act (USA).</td>
</tr>
<tr>
<td>NPRI</td>
<td>National Pollutant Release Inventory (Canada).</td>
</tr>
<tr>
<td>DOT</td>
<td>US Department of Transportation.</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association.</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System of Classification and Labelling of Chemicals.</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists.</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (division of the American Chemical Society).</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association (USA).</td>
</tr>
<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification System (USA).</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System (Canada).</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level (REACH).</td>
</tr>
</tbody>
</table>