SECTION 1: Identification

1.1. Identification
Product form : Mixture
Product name : PKA

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture : Water treatment for lowering pH and cleaning and de-scaling water lines

1.3. Details of the supplier of the safety data sheet
Animal Science Products, Inc.
3418 Rayburn Drive
Nacogdoches, TX 75961
Phone: 936.560.0003

1.4. Emergency telephone number
Emergency number : 936.560.0003

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
Classification (GHS-US)
Serious eye damage/eye irritation Category 1   H318
Full text of H statements : see section 16

2.2. Label elements
GHS-US labeling
Hazard pictograms (GHS-US) :

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H318 - Causes serious eye damage
Precautionary statements (GHS-US) :
P280 - Wear protective eye protection
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor

2.3. Other hazards
Dust may irritate skin and respiratory tract.

2.4. Unknown acute toxicity (GHS-US)
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium bisulfate</td>
<td>(CAS No) 7681-38-1</td>
<td>&gt; 90</td>
<td>Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: 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.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries after eye contact: Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed
No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Use extinguishing agent suitable for surrounding fire such as: Foam. Dry powder. Carbon dioxide. Water spray. Sand. Product is not flammable.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture
No additional information available

5.3. Advice for firefighters
Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions
Prevent entry of concentrated material to sewers and public waters. Notify authorities if concentrated material enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area.

Hygiene measures: Wash hands and other exposed areas thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep only in the original container in a cool, well ventilated place away from moisture. Keep container closed when not in use. Material is hygroscopic and will absorb moisture.

Incompatible products: None known.


SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Sodium bisulfate (7681-38-1)
Not applicable
**8.2. Exposure controls**

- **Personal protective equipment**: Avoid all unnecessary exposure.
- **Hand protection**: Wear protective gloves as necessary.
- **Eye protection**: Chemical goggles or safety glasses.
- **Respiratory protection**: Not typically required.
- **Other information**: Do not eat, drink or smoke during use.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

- **Physical state**: Solid
- **Color**: Blue
- **Odor**: characteristic
- **Odor threshold**: No data available
- **pH**: No data available
- **pH solution**: < 1
- **Concentration (%w/w)**: 5%
- **Melting point**: 177 °C
- **Freezing point**: No data available
- **Boiling point**: No data available
- **Flash point**: No data available
- **Relative evaporation rate (butyl acetate=1)**: No data available
- **Relative density**: 1.28
- **Relative vapor density at 20 °C**: No data available
- **Solubility**: Partially soluble in water
- **Log Pow**: No data available
- **Auto-ignition temperature**: No data available
- **Decomposition temperature**: No data available
- **Viscosity**: No data available
- **Viscosity, kinematic**: No data available
- **Viscosity, dynamic**: No data available

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No additional information available

**10.2. Chemical stability**

This product is stable under normal conditions of storage and use.

**10.3. Possibility of hazardous reactions**

Not anticipated under normal conditions of storage and use.

**10.4. Conditions to avoid**

Dry product should not be stored in moist conditions.

**10.5. Incompatible materials**

Strong acids. Strong bases. Oxidizing materials. Do not mix dry or concentrated solutions of this product with concentrated solutions of chlorine bleach, ammonia cleansers or similar products.

**10.6. Hazardous decomposition products**

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified

Sodium bisulfate (7681-38-1)

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>2490 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>2490.000 mg/kg body weight</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Causes serious eye damage.</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity (repeated exposure)</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Not classified</td>
<td></td>
</tr>
<tr>
<td>Potential Adverse human health effects and symptoms</td>
<td>No additional information available</td>
<td></td>
</tr>
<tr>
<td>Symptoms/injuries after eye contact</td>
<td>Causes serious eye damage.</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1. Toxicity

Sodium bisulfate (7681-38-1)

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50 Daphnia 1</td>
<td>190 mg/l</td>
<td>(Exposure time: 48 h - Species: Daphnia magna)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

PKA

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Not established.</td>
<td></td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

PKA

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>Not established.</td>
<td></td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste disposal recommendations</td>
<td>Dispose in a safe manner in accordance with local, state and federal regulations.</td>
<td></td>
</tr>
<tr>
<td>Ecology - waste materials</td>
<td>Avoid release to the environment.</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

TDG

No additional information available
Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations
PKA
SARA Section 311/312 Hazard Classes  Immediate (acute) health hazard

15.2. International regulations
CANADA
  Sodium bisulfate (7681-38-1)
  Listed on the Canadian DSL (Domestic Substances List)
EU-Regulations
  Sodium bisulfate (7681-38-1)
  Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
National regulations
  Sodium bisulfate (7681-38-1)
  Listed on the AICS (Australian Inventory of Chemical Substances)
  Listed on IECS (Inventory of Existing Chemical Substances Produced or Imported in China)
  Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
  Listed on the Japanese ISHL (Industrial Safety and Health Law)
  Listed on the Korean ECL (Existing Chemicals List)
  Listed on NZIoC (New Zealand Inventory of Chemicals)
  Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
  Listed on the Canadian IDL (Ingredient Disclosure List)
  Listed on INSQ (Mexican national Inventory of Chemical Substances)
  Listed on Turkish inventory of chemical

15.3. US State regulations
No additional information available

SECTION 16: Other information
Other information  : None.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H-Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
</tbody>
</table>

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 not therefore be construed as guaranteeing any specific property of the product