1. Identification

1.1. Product identifier
Product Identity: Acid Power®
Alternate Names: Acid Power®

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use: See Technical Data Sheet.
Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet
Company Name: Pharmacal Research Labs., Inc.
562 Captain Neville Dr.
Waterbury, CT 06705, USA

24 hour Emergency Telephone No.:
CHEMTREC (USA) (800) 424-9300
IN CANADA CALL CANUTEC (613) 996-6666

2. Hazard(s) identification

2.1. Classification of the substance or mixture
Skin Corr. 1B;H314 Causes severe skin burns and eye damage.
Eye Dam. 1;H318 Causes serious eye damage.

2.2. Label elements
Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Danger

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
[Prevention]:
P260 Do not breathe mist / vapors / spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

[Response]:
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P310 Immediately call a POISON CENTER or doctor / physician.
P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363 Wash contaminated clothing before reuse.

[Storage]:
P406 Store in corrosive resistant container with a resistant inner liner.

[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>20 - 30</td>
<td>Skin Corr. 1B;H314 (&gt; 25%)</td>
<td>[1][2]</td>
</tr>
<tr>
<td>polyalkoxyate</td>
<td>1.0 - 10</td>
<td>Skin Irrit. 2;H315 Eye Irrit. 2;H319</td>
<td>[1]</td>
</tr>
</tbody>
</table>

[1] Substance classified with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General
In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.
Inhalation
Move to fresh air.
Consult a physician if irritation of respiratory passages occur.

Eyes
Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.
Call a poison control center or doctor for treatment advice.

Skin
Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15 - 20 minutes.
Call a poison control center or doctor for treatment advice.

Ingestion
Call a poison control center or doctor for treatment advice.
Have person rinse mouth with water then drink large quantities of water to cause dilution.
Do not give anything by mouth to an unconscious person.
DO NOT Induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed
Overview
Slightly toxic with repeated inhalation or ingestion. May cause burns to exposed tissue.
See section 2 for further details.

Eyes
Causes serious eye damage.

Skin
Causes severe skin burns and eye damage.

Ingestion
May be harmful if swallowed.

5. Fire-fighting measures

5.1. Extinguishing media
Use media appropriate for surrounding area.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: High temperatures and fires may produce such toxic oxides as those from carbon, sulfur,
and phosphorous.
Do not breathe mist / vapors / spray.

5.3. Advice for fire-fighters
Flash Point: Phosphoric acid is not combustible but may react with metals to liberate hydrogen, a flammable gas.
Use full protective clothing and self-contained breathing apparatus.

ERG Guide No. 154
6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Steps to be taken in case material is released or spilled:
Dike and salvage or neutralize with lime or soda ash and dispose into treatment system in accordance with all federal, state, and local laws.
“Empty” container warnings:
Do not reuse empty container. Triple rinse with water. Dispose of in conformance with federal, state, and local regulations.

7. Handling and storage

7.1. Precautions for safe handling
Use goggles or face shield, rubber gloves, and boots where contact is expected.
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Do not store near chlorine-containing compounds.
Incompatible materials: Avoid contact with chlorinated products, reducing agents, alkalis, reactive metals, and metal oxides.
Keep in well ventilated area - store above 10°C (50°F). Store away from oxidizers and alkalines.
See section 2 for further details. - [Storage]:

7.3. Specific end use(s)
Keep out of reach of children.
For professional use only.
Do not mix with any other chemicals unless compatibility has been established by the manufacturer.
## 8. Exposure controls and personal protection

### 8.1. Control parameters

#### Exposure

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0007664-38-2</td>
<td>Phosphoric acid</td>
<td>OSHA</td>
<td>TWA 1 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA: 1 mg/m3 STEL: 3 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>TWA 1 mg/m3 ST 3 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>0068603-25-8</td>
<td>polyalkoxylate</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

#### Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0007664-38-2</td>
<td>Phosphoric acid</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>0068603-25-8</td>
<td>polyalkoxylate</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>

### 8.2. Exposure controls

#### Respiratory

Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

#### Eyes

Chemical Splash goggles or faceshield

#### Skin

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Use neoprene or rubber gloves or PVC..

#### Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

#### Other Work Practices

An eyewash fountain should be located in areas where the product is used. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

- [Prevention]:

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9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light green Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Measured</td>
</tr>
<tr>
<td>pH</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower Explosive Limit: Not Measured</td>
</tr>
<tr>
<td></td>
<td>Upper Explosive Limit: Not Measured</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.2</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Complete @ 1ATM and 25C</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not Measured</td>
</tr>
</tbody>
</table>

9.2. Other information
Physical properties are approximate or typical values and should not be used for precise design purposes.

10. Stability and reactivity

10.1. Reactivity
Hazardous polymerization will not occur.

10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
High temperatures, flames, and incompatibles.
Contact with reactive metals (e.g. mild steel-aluminum) may produce flammable/explosive hydrogen. Acid mixtures can react violently with strong alkali (bases).
Do not store near chlorine-containing compounds.
10.5. Incompatible materials
Avoid contact with chlorinated products, reducing agents, alkalis, reactive metals, and metal oxides.

10.6. Hazardous decomposition products
High temperatures and fires may produce such toxic oxides as those from carbon, sulfur, and phosphorous.

11. Toxicological information

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LD50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LD50, mg/L/4hr</th>
<th>Inhalation Gas LD50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid - (7664-38-2)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>polyalkoxylate - (68603-25-8)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product’s ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>5</td>
<td>May be harmful if swallowed. (Not adopted by US OSHA)</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>1B</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>1</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
12. Ecological information

12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid - (7664-38-2)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>polyalkoxylate - (68603-25-8)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

14.1. UN number
UN1760

14.2. UN proper shipping name
Corrosive liquids, n.o.s., (Phosphoric Acid)

14.3. Transport hazard class(es)
DOT Hazard Class: 8
DOT Label: 8
IMDG: 8
Sub Class: Not Applicable

14.4. Packing group
III

IMO / IMDG (Ocean Transportation)
UN1760
Corrosive liquids, n.o.s., (Phosphoric Acid)
Air Class: 8

ICAO/IATA
UN1760
Corrosive liquids, n.o.s., (Phosphoric Acid)
14.5. Environmental hazards

IMDG
Marine Pollutant: No

14.6. Special precautions for user
No further information

15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance
Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification
D2B E

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):
Phosphoric acid (5,000.00)

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%):
Phosphoric acid

Penn RTK Substances (>1%):
Phosphoric acid
16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:
H314 Causes severe skin burns and eye damage.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information and recommendations contained herein are, to the best of Pharmacal's knowledge and belief, accurate and reliable as of the date issued. Pharmacal does not warrant or guarantee their accuracy or reliability, and Pharmacal shall not be liable for any loss or damage arising out of there use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

The hazardous materials identification system (HMIS) and national fire protection association ratings have been included by Pharmacal research laboratories INC. In order to provide additional health and hazard information. The ratings recommended are based upon criteria supplied by the developers of these rating systems, together with Pharmacal's interpretation of the available data.

End of Document