# 1. Identification

## 1.1. Product identifier

**Product Identity**
Monoammonium Phosphate (M.A.P.)

**Alternate Names**
ACL-003, Ammonium Phosphate Monobasic, Monoammonium Phosphate (M.A.P.)

## 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**
7420 Airport Road - Unit 202
Mississauga, ON L4T 4E5

## Emergency

**24 hour Emergency Telephone No.**
AGRICO (MISSISSAUGA) EMERGENCY ASSISTANCE
(905) 672-5700
CANUTEC 24 HOUR EMERGENCY 1-888-CAN-UTECH
(226-8832)

**Customer Service:**
(502)842 2633

# 2. Hazard(s) identification

## 2.1. Classification of the substance or mixture

- **Ox. Gas 1;H270**
  May cause or intensify fire; oxidizer.
- **Acute Tox. 4;H332**
  Harmful if inhaled.
- **Skin Irrit. 2;H315**
  Causes skin irritation.
- **Eye Irrit. 2;H319**
  Causes serious eye irritation.

## 2.2. Label elements

**H270**
May cause or intensify fire; oxidizer.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

**[Prevention]:**
P244 Keep reduction valves free from grease and oil.
P261 Avoid breathing dust / fume / gas / mist / vapors / spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.

**[Response]:**
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P332+313 If skin irritation occurs: Get medical advice / attention.
P337+313 If eye irritation persists: Get medical advice / attention.
P362+364 Take off contaminated clothing and wash it before reuse.
P370+376 In case of fire: Stop leak if safe to do so.

**[Storage]:**
P403+235 Store in a well ventilated place. Keep cool.

**[Disposal]:**
No GHS disposal statements

### 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the Controlled Products Regulations.

<table>
<thead>
<tr>
<th>Ingredient/Cheical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid, monoammonium salt CAS Number: 0007722-76-1</td>
<td>85</td>
<td>Not Classified</td>
<td>[1]</td>
</tr>
<tr>
<td>F2 CAS Number: 0007782-41-4</td>
<td>1.55</td>
<td>Press. Gas;H280 Ox. Gas 1;H270 Acute tox. 2;H330 Skin Corr. 1A;H314</td>
<td>[1][2]</td>
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<tr>
<td>Iron CAS Number: 0007439-89-6</td>
<td>1.45</td>
<td>Not Classified</td>
<td>[1]</td>
</tr>
<tr>
<td>Sulfur CAS Number: 0007704-34-9</td>
<td>1.25</td>
<td>Skin Irrit. 2;H315</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
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion
If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview
At high dust concentrations, irritation of eyes, skin, and mucous membranes by chemical or mechanical action may occur. Preexisting respiratory disease including asthma and emphysema.

Inhalation
Harmful if inhaled.

Eyes
Causes serious eye irritation.

Skin
Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media
Use media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: If heated to the point of decomposition, oxides of nitrogen and phosphorus may be released.
Keep reduction valves free from grease and oil.
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters
Wear self-contained breathing apparatus (positive pressure, if available) and full protective clothing.

ERG Guide No.
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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
Do not allow spills to enter drains or waterways.
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
EMERGENCY ACTION: Prevent large quantities from contact with waterways or vegetation.
SMALL SPILLS: If uncontaminated, recover and reuse as product. Consult with environmental regulatory agencies for acceptable disposal procedures.
LARGE SPILLS: Consult with environmental regulatory agencies for acceptable disposal procedures if product cannot be recovered and reused.

7. Handling and storage

7.1. Precautions for safe handling
Handle containers carefully to prevent damage and spillage.
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Incompatible materials: May be corrosive to iron and mild steels, aluminum, zinc and copper.
See section 2 for further details. - [Storage]:

7.3. Specific end use(s)
No data available.

8. Exposure controls and personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0007439-89-6</td>
<td>Iron</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>
<tr>
<td>0007704-34-9</td>
<td>Sulfur</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>
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<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td>0007722-76-1</td>
<td>Phosphoric acid, monoammonium salt</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>
Safety Data Sheet
Monoammonium Phosphate (M.A.P.)

SDS Revision Date: 02/21/2017

8.2. Exposure controls

Respiratory
If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes
Protective safety glasses recommended

Skin
No protection required. If irritation occurs, long sleeves and imperious gloves should be worn.

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
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.

9. Physical and chemical properties

Appearance
Granules with colour ranging from gray to green, tan, brown or black. Solid

Odor
No odor or slight odor of ammonia.

Odor threshold
Not determined

pH
4.2

Melting point / freezing point
190°C

Initial boiling point and boiling range
Decomposes at 150°C

Flash Point
Not Measured

Evaporation rate (Ether = 1)
Not Measured

Flammability (solid, gas)
Not Applicable

Upper/lower flammability or explosive limits
Lower Explosive Limit: Not Measured
Upper Explosive Limit: Not Measured

Vapor pressure (Pa)
Not Applicable

Vapor Density
Not Measured
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
No data available.

10.5. Incompatible materials
May be corrosive to iron and mild steels, aluminum, zinc and copper.

10.6. Hazardous decomposition products
If heated to the point of decomposition, oxides of nitrogen and phosphorus may be released.

11. Toxicological information

Acute toxicity

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).
Safety Data Sheet  
Monoammonium Phosphate (M.A.P.)

Iron - (7439-89-6)  
30,000.00, Rat - Category: NA  
No data available  
No data available  
No data available  
No data available

Sulfur - (7704-34-9)  
8,437.00, Rat - Category: NA  
5,587.00, Guinea Pig - Category: NA  
No data available  
No data available  
No data available  
No data available

Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0007439-89-6</td>
<td>Iron</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>0007704-34-9</td>
<td>Sulfur</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>0007722-76-1</td>
<td>Phosphoric acid, monoammonium salt</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>0007782-41-4</td>
<td>F2</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
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<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>

Classification

<table>
<thead>
<tr>
<th>Hazard Description</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>4</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>2</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>2</td>
<td>Causes serious eye irritation.</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>
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<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>
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<td>Not Applicable</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>---</td>
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</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, monoammonium salt - (7722-76-1)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>F2 - (7782-41-4)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Iron - (7439-89-6)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Sulfur - (7704-34-9)</td>
<td>866.00, Danio rerio</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
Not Applicable

14.2. UN proper shipping name
Not Regulated

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

DOT (Domestic Surface Transportation)
IMO / IMDG (Ocean Transportation)
ICAO/IATA

Air Class: Not Applicable
14.4. Packing group Not Applicable
14.5. Environmental hazards
IMDG Marine Pollutant: No;
14.6. Special precautions for user
No further information

15. Regulatory information

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

Components are DSL Listed, NDSL Listed and/or are exempt from listing.

WHMIS Classification D2B C

16. Other information

SDS Revision Date 02/21/2017
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:
H270 May cause or intensify fire; oxidizer.
H280 Contains gas under pressure; may explode if heated.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H330 Fatal if inhaled.

The information contained herein is furnished without warranty of any kind. The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide. Users should make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers.

End of Document