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

Product name: Acetamide Crystal, Tech Grade

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25116

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:
- AquaPhoenix Scientific
  - 9 Barnhart Drive, Hanover, PA 17331

Supplier Details:
- Fisher Science Education
  - 15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:
- Fisher Science Education  Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Health hazard
Carcinogenicity, category 2

Hazards Not Otherwise Classified - Combustible Dust
Carcinogenicity - Category 2

Signal word : Warning

Hazard statements:
Suspected of causing cancer

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
- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- IF exposed or concerned: Get medical advice/attention
- Store locked up
- Dispose of contents and container as instructed in Section 13

Combustible Dust Hazard: :
May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification: WHMIS
SECTION 3 : Composition/information on ingredients

Ingredients:

<table>
<thead>
<tr>
<th>CAS 60-35-5</th>
<th>Acetamide</th>
<th>&gt;99 %</th>
</tr>
</thead>
</table>

Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Get medical assistance if cough or other symptoms appear.

After skin contact: Rinse/flush exposed skin gently using soap and water for 15-20 minutes. Seek medical advice if discomfort or irritation persists. Remove contaminated clothing and wash before reuse.

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 15-20 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. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Nausea, Headache, Shortness of breath. May be harmful if absorbed through the skin. May be harmful if swallowed. Irritation - all routes of exposure. May cause kidney injury. May cause cancer according to animal studies. Limited evidence of a carcinogenic effect.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media
Suitable extinguishing agents: Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use dry chemical or carbon dioxide (Water or foam may cause frothing)

For safety reasons unsuitable extinguishing agents: Water or foam

Special hazards arising from the substance or mixture:
Combustion products may include carbon oxides or other toxic vapors.

Advice for firefighters:
- Protective equipment: Use NIOSH-approved respiratory protection/breathing apparatus. Wear chemical protective clothing and equipment for fire-fighting.
- Additional information (precautions): Move product containers away from fire or keep cool with water spray as a protective measure, where feasible. Use spark-proof tools and explosion-proof equipment. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Wear protective equipment. Use spark-proof tools and explosion-proof equipment. Ensure that air-handling systems are operational. Ensure adequate ventilation.

Environmental precautions:
Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13. Should not be released into environment.

Methods and material for containment and cleaning up:
Keep in suitable closed containers for disposal. Wear protective eyeware, gloves, and clothing. Refer to Section 8. Always obey local regulations. Avoid generating dusty conditions. Vacuum or sweep up material and place into a suitable disposal container and label (see Section 13). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect solids in powder form using vacuum with (HEPA filter). Evacuate personnel to safe areas.

Reference to other sections:

SECTION 7: Handling and storage

Precautions for safe handling:
Minimize dust generation and accumulation. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:
Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Store locked up. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed containers. Store with like hazards.

SECTION 8: Exposure controls/personal protection
Control Parameters: 

\[ \text{OSHA PEL TWA (Total Dust)} \times 15 \text{ mg/m}^3 \times (50 \text{ mppcf}) \]

\[ \text{ACGIH TLV TWA (inhalable particles)} \times 10 \text{ mg/m}^3 \]

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. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use under a fume hood.

Respiratory protection: 

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin: 

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection: 

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures: 

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before rewearing, wash contaminated clothing.

SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance (physical state, color):</th>
<th>White, crystals</th>
<th>Explosion limit lower:</th>
<th>Not determined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor:</td>
<td>Not Determined</td>
<td>Vapor pressure:</td>
<td>1.33 hPa @ 20C</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>Not determined</td>
<td>Vapor density:</td>
<td>2.10</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not Determined</td>
<td>Relative density:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting/Freezing point:</td>
<td>79-81C</td>
<td>Solubilities:</td>
<td>2000 g/L (20C). 1 g dissolves in 0.5 ml water, 2 ml alcohol, 6 ml pyridine; sol in chloroform, glycerol, hot benzene</td>
</tr>
<tr>
<td>Boiling point/Boiling range:</td>
<td>221C</td>
<td>Partition coefficient (n-octanol/water):</td>
<td>Log Kow = -1.26</td>
</tr>
<tr>
<td>Flash point (closed cup):</td>
<td>Not determined</td>
<td>Auto/Self-ignition temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Negligible</td>
<td>Decomposition temperature:</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
Acetamide Crystal, Tech Grade

### Flammability
(liquid, gaseous): Not determined

### Viscosity:
- Kinematic: Not determined
- Dynamic: 2.182 centipose (91.1 deg C); 1.461 centipose (111.8 deg C); 1.056 centipose (131.7 deg C)

### Density:
1.159 @ 20 deg C/4 deg C

### Additional property:
Hygroscopic (absorbs moisture from the air)

### Specific Gravity:
1.16

### SECTION 10: Stability and reactivity

**Reactivity:** Nonreactive under normal conditions.

**Chemical stability:** Stable under normal conditions. Hygroscopic (absorbs moisture from the air). Deliquescent (tending to absorb atmospheric water vapor and become liquid).

**Possible hazardous reactions:** None under normal processing

**Conditions to avoid:** Incompatible Materials.

**Incompatible materials:** Strong acids. Strong bases. Oxidizing agents.

**Hazardous decomposition products:**

### SECTION 11: Toxicological information

#### Acute Toxicity:
- **Oral:** 60-35-5
  - LD50 Rat oral 7 g/kg

**Chronic Toxicity:** No additional information.

**Corrosion Irritation:** No additional information.

**Sensitization:**
- No additional information.

**Single Target Organ (STOT):**
- Eyes, skin, respiratory system, teeth, blood, liver, kidney, gastrointestinal tract

**Numerical Measures:**
- No additional information.

**Carcinogenicity:**
- OSHA: Carcinogen (60-35-5)

**Mutagenicity:**
- Not mutagenic in AMES test

**Reproductive Toxicity:**
- No additional information.

### SECTION 12: Ecological information

**Ecotoxicity Persistence and degradability:** Terrestrial: Very high leachability due to its solubility; Aquatic: Readily biodegrades. Atmospheric: Exists as an aerosol and is removed by wet deposition

**Bioaccumulative potential:** Not expected to bioconcentrate

**Mobility in soil:** Terrestrial: Very high leachability due to its solubility

**Other adverse effects:**

### SECTION 13: Disposal considerations
Waste disposal recommendations:
Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

UN-Number
Not Regulated.

UN proper shipping name
Not Regulated.

Transport hazard class(es)
Packing group: Not Regulated

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):
Reactive, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):
60-35-5 Acetamide

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

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

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):
60-35-5 Acetamide 100 lbs

Proposition 65 (California):

Chemicals known to cause cancer:
None of the ingredients is listed

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

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

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

Canada

Canadian Domestic Substances List (DSL):
Acetamide Crystal, Tech Grade

60-35-5 Acetamide Present on DSL (CEPA, subsection 81(3) applies)

Canadian NPRI Ingredient Disclosure list (limit 0.1%):
None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):
None of the ingredients is 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.

GHS Full Text Phrases:

Abbreviations and acronyms:
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation

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