1. Identification

Product identifier AQUATAC™ 9027

Other means of identification

- SDS number: 8713
- Product Code: 200000000252

Recommended use
Industrial uses: Uses of substances as such or in preparations at industrial sites. Formulation [mixing] of preparations and/or re-packaging (excluding alloys).

Recommended restrictions
None known.

Manufacturer/Importer/Supplier/Distributor information

- Company: Arizona Chemical Company LLC
- Address: Building 100, 4600 Touchton Road East, Suite 1200
- City/State: Jacksonville, FL
- Zip: 32246
- Country: USA
- Phone Number: 904-928-8700
- Alternate Phone Number: 800-526-5294
- Fax Number: 904-928-8780
- Emergency-US: CHEMTREC 800-424-9300

2. Hazard(s) identification

Physical hazards
Not classified.

Health hazards
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 1
- Sensitization, skin: Category 1B
- Specific target organ toxicity, single exposure: Category 3 respiratory tract irritation

OSHA defined hazards
Not classified.

Label elements

Signal word
Danger

Hazard statement
Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

Precautionary statement

Prevention
Avoid breathing mist or vapor. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response
If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage
Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Rosin Ester</td>
<td>Proprietary</td>
<td>60 - &lt;70</td>
<td></td>
</tr>
<tr>
<td>Rosin Ester</td>
<td>Proprietary</td>
<td>20 - &lt;30</td>
<td></td>
</tr>
<tr>
<td>Additive</td>
<td>Proprietary</td>
<td>5 - &lt;10</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>1 - &lt;3</td>
<td></td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Most important symptoms/effects, acute and delayed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

Indication of immediate medical attention and special treatment needed

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

General information

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Wear suitable protective equipment. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not get this material in contact with eyes. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Follow all SDS/label precautions even after container is emptied because they may retain product residues.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Keep containers closed when not in use. Store at ambient temperature and atmospheric pressure. Manufacturer recommends storing above 40 °F. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Do not get in eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

Skin protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Hand protection

Wear appropriate chemical resistant clothing.

Other

Chemical respirator with organic vapor cartridge and full facepiece.

Respiratory protection

Wear appropriate thermal protective clothing, when necessary.

9. Physical and chemical properties

Appearance

Physical state: Liquid.
Form: Liquid.
Color: Dark amber.
Odor: Mild amine
Odor threshold: Not available.

pH: 8 - 10

Melting point/freezing point: 32 °F (0 °C) (water)
Initial boiling point and boiling range: 212 °F (100 °C) (water)
Flash point: 392.0 °F (200.0 °C) Cleveland Open Cup

Evaporation rate: 0.3 (n-BuAc=1) (water)

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%): Not available.
Flammability limit - upper (%): Not available.
Explosive limit - lower (%) Not available.
Explosive limit - upper (%) Not available.

Vapor pressure 18 mm Hg at 20°C (water)
Vapor density 0.6 (air=1) (water)
Relative density 1.04 at 25°C/25°C (water=1)

Solubility(ies)
- Solubility (water) Dilutable

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.
Decomposition temperature Not available.

Viscosity 160000 cP Brookfield at 30°C

Other information
- Chemical family Resin Dispersion
- Density 1040.00 kg/m³ at 20°C
- Explosive properties Not explosive.
- Oxidizing properties Not oxidizing.
- Percent volatile 5 % by weight (water)
- Weighted solids 89 - 91 %

10. Stability and reactivity
Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Conditions to avoid Strong oxidizing agents. Contact with incompatible materials.
Incompatible materials This product may react with strong oxidizing agents. Peroxides. Phenols.
Hazardous decomposition products Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion.

11. Toxicological information

Information on likely routes of exposure
- Inhalation May cause irritation to the respiratory system.
- Skin contact Causes skin irritation. May cause an allergic skin reaction.
- Eye contact Causes serious eye damage.

Modified Rosin Ester
- Irritation Corrosion - Eye, May cause eye irritation.; Data is for similar product.
- Result: Positive
- Species: New Zealand white rabbit
- Organ: Eye
- Test Duration: 4 hr
- Observation Period: 72 hr
- Notes: OECD 405

Rosin Ester
- Irritation Corrosion - Eye, No eye irritation.
- Result: Negative
- Species: New Zealand white rabbit
- Organ: Eye
- Test Duration: 72 hr
- Observation Period: 7 days
- Notes: OECD 405

Ingestion Health injuries are not known or expected under normal use.

Symptoms related to the physical, chemical and toxicological characteristics Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects
Acute toxicity

May cause respiratory irritation. May cause an allergic skin reaction.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified Rosin Ester</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subchronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOAEL</td>
<td>Wistar rat</td>
<td>300 mg/kg/day, 8 weeks Developmental.; Data is for similar product.</td>
</tr>
<tr>
<td>NOEL</td>
<td>Wistar rat</td>
<td>1000 mg/kg/day, 8 weeks Reproductive.; Data is for similar product.</td>
</tr>
</tbody>
</table>

Rosin Ester

**Acute**

Dermal

LD50 New Zealand white rabbit > 2000 mg/kg, 14 days At this dose no death occurred.; OECD 402.

Oral

LD50 Sprague-Dawley rat > 2000 mg/kg, 14 days At this dose no death occurred.; OECD 425

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation

Causes skin irritation.

**Corrosivity**

AQUATAC™ 9027 > 60 Corrositex, Non-corrosive per US Department of Transportation testing protocol.

Result: Negative

Organ: Synthetic biobarrier

Observation Period: 60 min

Modified Rosin Ester

Irritation Corrosion - Skin, Mild skin irritation

Result: Positive

Species: New Zealand white rabbit

Organ: Skin

Test Duration: 4 hr

Observation Period: 48 hr

Notes: OECD 404

Rosin Ester

Irritation Corrosion - Skin, No skin irritation.

Result: Negative

Species: New Zealand white rabbit

Organ: Skin

Test Duration: 4 hr

Observation Period: 72 hr

Notes: OECD 404

Serious eye damage/eye irritation

Causes serious eye damage.

**Eye Contact**

Modified Rosin Ester

Irritation Corrosion - Eye, May cause eye irritation.; Data is for similar product.

Result: Positive

Species: New Zealand white rabbit

Organ: Eye

Test Duration: 4 hr

Observation Period: 72 hr

Notes: OECD 405

Rosin Ester

Irritation Corrosion - Eye, No eye irritation.

Result: Negative

Species: New Zealand white rabbit

Organ: Eye

Test Duration: 72 hr

Observation Period: 7 days

Notes: OECD 405

Respiratory or skin sensitization

**Respiratory sensitization**

Not available.

**Skin sensitization**

May cause an allergic skin reaction.
**Skin sensitization**

Modified Rosin Ester

50 % w/w Local Lymph Node Assay - Lowest Concentration Producing Reaction, SI=4.24; May cause sensitization by skin contact.; Data is for similar product.

Result: Positive
Species: Mouse
Notes: OECD 429

Rosin Ester

Local Lymph Node Assay - Lowest Concentration Producing Reaction, Not a skin sensitizer.

Result: Negative
Species: Mouse
Organ: Skin
Notes: OECD 429

Maximisation Assay (Magnusson and Kligman), Not a skin sensitizer.

Result: Negative
Species: Guinea pig
Organ: Skin
Notes: OECD 429

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Mutagenicity**

Modified Rosin Ester

Germ Cell Mutagenicity: Ame, No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Result: Negative
Species: Salmonella typhimurium
Notes: OECD 471

Rosin Ester

Germ Cell Mutagenicity: Ames, No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Result: Negative
Species: Salmonella typhimurium
Notes: OECD 471

Modified Rosin Ester

Germ Cell Mutagenicity: Chromosome Abberation, Data is for similar product.

Result: Negative
Species: Human
Notes: OECD 473

Rosin Ester

Germ Cell Mutagenicity: Chromosome Abberation, This material is considered to be non-clastogenic to human lymphocytes in vitro.

Result: Negative
Species: Human
Notes: OECD 473

In vitro gene mutation study in mammalian cells

Result: Negative
Species: Mouse
Notes: OECD 476

Modified Rosin Ester

In Vitro Mammalian Cell Gene Mutation Test, No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.; Data is for similar product.

Result: Negative
Species: Mouse
Notes: OECD 476

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

May cause respiratory irritation.
Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not an aspiration hazard.

Further information:
Rosin Ester

Cytotoxicity - in Vitro, Not cytotoxic
Result: Negative
Species: Human
Organ: Fibroblasts cells
Notes: BS 30993-5
Cytotoxicity - in Vitro, Not cytotoxic
Result: Negative
Species: Human
Organ: Lung cell tissue
Notes: BS 5736
Cytotoxicity - in Vitro, Not cytotoxic
Result: Negative
Species: Mouse
Organ: Fibroblasts cells
Test Duration: 72 hr
Observation Period: 24 hr
Notes: BS 5736

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
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<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EC0</td>
<td>Algae 1000 mg/l, 72 hr Data is for similar product.; OECD 201</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna) &gt; 100 mg/l, 48 hr Data is for similar product.; OECD 202</td>
</tr>
<tr>
<td></td>
<td>NOEL</td>
<td>Water flea (Daphnia magna) 100 mg/l, 48 hr Data is for similar product.; OECD 202</td>
</tr>
<tr>
<td>Fish</td>
<td>LC0</td>
<td>Danio (Danio) &gt; 400 mg/l, 96 hr Data is for similar product.; OECD 203</td>
</tr>
<tr>
<td>Rosin Ester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Algae</td>
<td>EL50</td>
<td>Green algae (Selenastrum capricornutum) &gt; 1000 mg/l, 72 hr OECD 201</td>
</tr>
<tr>
<td></td>
<td>NOEL</td>
<td>Green algae (Selenastrum capricornutum) 1000 mg/l, 72 hr OECD 201</td>
</tr>
<tr>
<td>Crustacea</td>
<td>EL50</td>
<td>Water flea (Daphnia magna) &gt; 1000 mg/l, 48 hr OECD 202</td>
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<tr>
<td></td>
<td>NOEC</td>
<td>Water flea (Daphnia magna) 1000 mg/l, 48 hr OECD 202</td>
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<tr>
<td>Fish</td>
<td>LL50</td>
<td>Fathead minnow (Pimephales promelas) &gt; 1000 mg/l, 96 hr OECD 203</td>
</tr>
<tr>
<td></td>
<td>NOEL</td>
<td>Fathead minnow (Pimephales promelas) 1000 mg/l, 96 hr OECD 203</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Biodegradability
Percent degradation (Aerobic biodegradation)
Rosin Ester 0 % OECD 301B
Result: Not readily biodegradable.
Species: Activated sewage sludge
Test Duration: 28 days

Bioaccumulative potential
Mobility in soil: No data available.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.
13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not available.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

- TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
  Not regulated.
- CERCLA Hazardous Substance List (40 CFR 302.4)
  Not listed.
- SARA 304 Emergency release notification
  Not regulated.
  Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard</th>
<th>Delayed Hazard</th>
<th>Fire Hazard</th>
<th>Pressure Hazard</th>
<th>Reactivity Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA 302 Extremely hazardous substance</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SARA 311/312 Hazardous chemical</td>
<td>Yes</td>
<td></td>
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<tr>
<td>SARA 313 (TRI reporting)</td>
<td>Not regulated.</td>
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</tbody>
</table>

Other federal regulations

- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
  Not regulated.
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
  Not regulated.
- Safe Drinking Water Act (SDWA)
  Not regulated.
- NFPA ratings
  Health: 3
  Flammability: 1
  Instability: 0
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Revision information

Hazard(s) identification: Prevention
Hazard(s) identification: Response
Handling and storage: Conditions for safe storage, including any incompatibilities
Handling and storage: Safe storage conditions (and technical measures)
Physical and chemical properties: Color
Physical and chemical properties: Oxidizing properties
Physical and chemical properties: Explosive properties
Regulatory information: European Union
Other information, including date of preparation or last revision: Disclaimer
GHS: Classification