



# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Revision Date: 03/09/2024

Version: 1.1

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

#### Product Identifier

**Product Form:** Mixture

**Product Name:** AFCOOL A

**Product Code:** AFCO 9005

#### Intended Use of the Product

**Use of the Substance/Mixture:** Liquid scale and corrosion inhibitor. For professional use only.

#### Name, Address, and Telephone of the Responsible Party

##### **Company**

AFCO  
550 Development Avenue  
Chambersburg, PA 17201  
T: 800-345-1329  
[www.afcocare.com](http://www.afcocare.com)

#### Emergency Telephone Number

**Emergency Number** : 1-800-424-9300 (CHEMTREC)

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of the Substance or Mixture

##### **Classification (GHS-US)**

Skin Irrit. 2 H315

Eye Irrit. 2A H319

#### Label Elements

##### **GHS-US Labeling**

##### **Hazard Pictograms (GHS-US)**

:



##### **Signal Word (GHS-US)**

: Warning.

##### **Hazard Statements (GHS-US)**

: H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.

##### **Precautionary Statements (GHS-US)**

: P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P280 - Wear eye protection.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P321 - Specific treatment (see Section 4).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists : Get medical advice/attention.  
P362 - Take off contaminated clothing and wash before reuse.

#### Other Hazards

**Other Hazards Not Contributing to the Classification:** Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes.

**Unknown Acute Toxicity (GHS-US)** Not available.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### Substances

#### Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	80-90	Not classified
1,2,4-Butanetricarboxylic acid, 2-phosphono-	(CAS No) 37971-36-1	1-5	Met. Corr. 1, H290

# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

			Skin Corr. 1A, H314 Eye Dam. 1, H318
Benzotriazole	(CAS No) 95-14-7	1-5	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
Acrylic copolymer	Mixture	1-5	Not classified
Polymaleic Polymer	Mixture	1-5	Skin Corrr. 1B, H314 Eye Dam. 1, H318
Polymaleic acid, sodium salt	(CAS No) 26099-09-2	1-5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-phrases: see section 16.

## SECTION 4: FIRST AID MEASURES

### Description of 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).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for several minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

**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.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes skin irritation. Causes serious eye irritation.

**Inhalation:** Not classified.

**Skin Contact:** Causes skin irritation.

**Eye Contact:** Causes serious eye irritation.

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** Not available.

### Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide, foam, dry chemical.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>) Nitrogen oxides. Phosphorus oxides

### Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>) Nitrogen oxides. Phosphorus oxides.

**Other information:** Do not allow run-off from fire fighting to enter drains or water courses.

### Reference to Other Sections

Refer to section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid all contact with skin, eyes, or clothing.

# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

### For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** None.

### Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

### Methods and Material for Containment and Cleaning Up

**For Containment:** Absorb and/or contain spill with inert material, then place in suitable container. Cautiously neutralize spilled liquid with soda ash or lime.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Cautiously neutralize spilled liquid with soda ash or lime.

### Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**Additional Hazards When Processed:** None.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Wash contaminated clothing before reuse.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely low temperatures, incompatible materials.

**Incompatible Materials:** Strong oxidizers.

**Specific End Use(s):** Liquid scale and corrosion inhibitor. For professional use only.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or any of its chemical components.

### Exposure Controls

**Appropriate Engineering Controls:** Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Safety goggles. Gloves.



**Materials for Protective Clothing:** None usually needed.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Safety goggles.

**Skin and Body Protection:** None usually needed.

**Respiratory Protection:** None usually needed.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, amber to dark brown
Odor	: Mild

# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor Threshold	: Not available
pH	: 3.5-4.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 103°C (217°F)
Flash Point	: None
Auto-ignition Temperature	: None
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Specific Gravity	: 1.08
Solubility	: Complete.
Log Pow	: Not available
Log Kow	: Not available
Viscosity, Kinematic	: Not available
Viscosity, Dynamic	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not available
Explosion Data – Sensitivity to Static Discharge	: Not available

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Thermal decomposition generates: Corrosive fumes.

**Chemical Stability:** Stable at standard temperature and pressure.

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Extremely low temperatures. Incompatible materials.

**Incompatible Materials:** Strong oxidizers.

**Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides. Phosphorus oxides

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified.

**LD50 and LC50 Data:** Not available.

**Skin Corrosion/Irritation:** Causes skin irritation. (pH: 3.5-4.5)

**Serious Eye Damage/Irritation:** Causes serious eye irritation. (pH: 3.5-4.5)

**Respiratory or Skin Sensitization:** Not classified.

**Germ Cell Mutagenicity:** Not classified.

**Teratogenicity:** Not available.

**Carcinogenicity:** Not classified.

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified.

**Reproductive Toxicity:** Not classified.

**Specific Target Organ Toxicity (Single Exposure):** Not classified.

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** Not classified.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation.

**Symptoms/Injuries After Eye Contact:** Causes serious eye irritation.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

### Information on Toxicological Effects - Ingredient(s)

# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### LD50 and LC50 Data:

<b>Water (7732-18-5)</b>	
LD50 Oral Rat	>90000 mg/kg
<b>Benzotriazole (95-14-7)</b>	
LD50 Oral Rat	600 mg/kg
<b>1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)</b>	
LD50 Oral Rat	>4000 mg/kg
LD50 Dermal Rat	>4000 mg/kg
LC50 Inhalation Rat	>1979 mg/m <sup>3</sup> (Exposure time: 4 h)
<b>Polymaleic Polymer (Mixture)</b>	
LD50 Oral Rat	>5000 mg/kg

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

**Ecology - General:** Not available.

<b>Acrylic copolymer (Mixture)</b>	
LC50 Fish 1	1079 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	>1529 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Polymaleic Polymer (Mixture)</b>	
LC50 Fish 1	>100 mg/l (Exposure time: 96 h)
EC50 Daphnia 1	>100 mg/l (Exposure time: 48 h - Species: Daphnia magna)

### Persistence and Degradability

<b>AFCOOL A (AFCO 9005)</b>	
Persistence and Degradability	Not established.

### Bioaccumulative Potential

<b>AFCOOL A (AFCO 9005)</b>	
Bioaccumulative Potential	Not established.

<b>1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)</b>	
BCF fish 1	(no bioaccumulation expected)

**Mobility in Soil** Not available.

### Other Adverse Effects

**Other Information:** Not available.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

## SECTION 14: TRANSPORT INFORMATION

<b>14.1 In Accordance with DOT</b>	:	Not regulated for transport.
<b>14.2 In Accordance with IMDG</b>	:	Not regulated for transport.
<b>14.3 In Accordance with IATA</b>	:	Not regulated for transport.
<b>14.4 In Accordance with TDG</b>	:	Not regulated for transport.

## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

<b>AFCOOL A (AFCO 9005)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard.
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
<b>Benzotriazole (95-14-7)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	

# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
<b>Acrylic copolymer (Mixture)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
<b>Polymaleic Polymer (Mixture)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory.
<b>Polymaleic acid, sodium salt (26099-09-2)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory.

### US State Regulations

<b>1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)</b>
U.S. - Texas - Effects Screening Levels - Long Term.
U.S. - Texas - Effects Screening Levels - Short Term.

### Canadian Regulations

<b>Water (7732-18-5)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>Benzotriazole (95-14-7)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>Acrylic copolymer (Mixture)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>Polymaleic Polymer (Mixture)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.
<b>Polymaleic acid, sodium salt (26099-09-2)</b>
Listed on the Canadian DSL (Domestic Substances List) inventory.

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

## SECTION 16: OTHER INFORMATION

<b>Revision date</b>	: 03/09/2024
<b>Other Information</b>	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

Eye Dam 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
H290	May be corrosive to metal
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage.
H319	Causes serious eye irritation
H320	Causes eye irritation

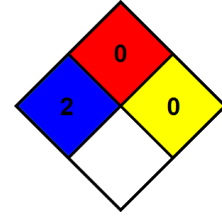
# AFCOOL A (AFCO 9005)

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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- NFPA Health Hazard** : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA Fire Hazard** : 0 - Materials that will not burn.
- NFPA Reactivity** : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

- Health** : 2 Moderate Hazard - Temporary or minor injury may occur.
- Flammability** : 0 - Minimal Hazard.
- Physical** : 0 - Minimal Hazard.

### Party Responsible for the Preparation of This Document

AFCO  
550 Development Avenue  
Chambersburg, PA 17201  
T: 800-345-1329

*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.*

North America GHS SDS 2015 (U.S., Can., Mex.)