

## 1. Identification

<b>Product identifier</b>	<b>ARISTONATE® H</b>	
<b>Other means of identification</b>		
<b>Product Code</b>	516S40	
<b>Recommended use</b>	Emulsifier, Corrosion Inhibitor	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	Pilot Chemical Company	
<b>Address</b>	9075 Centre Pointe Drive Suite 400 West Chester, OH 45069 United States	
<b>Telephone</b>	(513) 326-0600	(8 AM to 5 PM Eastern)
	1-800-707-4568	
<b>E-mail</b>	sdsinfo@pilotchemical.com	
<b>Emergency phone number</b>	CHEMTREC International: 1-703-527-3887	
<b>CHEMTREC USA:</b>	1-800-424-9300	

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 4
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1B
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 3
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Combustible liquid. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from flames and hot surfaces-No smoking. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.
<b>Response</b>	If on skin: Wash with plenty of water. 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 it before reuse. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Benzene, Mono-C10-13-alkyl Derivs., Fractionation Bottoms, Heavy Ends, Sulfonated, Sodium Salts		148520-82-5	50 - < 60
Benzenesulfonic Acid, C10-14-alkyl Derivs., Sodium Salts		69669-44-9	20 - < 30
Distillates, Petroleum, Hydrotreated Heavy Naphthenic		64742-52-5	Trade Secret
Other components below reportable levels			5 - < 10

#### Impurities

Chemical name	Common name and synonyms	CAS number	%
Alkylbenzene 2		Trade Secret	
Alkylbenzene 1		Trade Secret	

**Composition comments** Occupational Exposure Limits for impurities are listed in Section 8.

### 4. First-aid measures

#### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

#### 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

Rinse mouth. Get medical attention if symptoms occur.

#### Most important symptoms/effects, acute and delayed

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

#### Indication of immediate medical attention and special treatment needed

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

#### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

#### Unsuitable extinguishing media

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

#### Specific hazards arising from the chemical

The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

#### 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

In case of fire and/or explosion do not breathe fumes. 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

Combustible liquid.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. 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**

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. 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 release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Do not get this material in contact with eyes. Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

**8. Exposure controls/personal protection****Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	PEL	5 mg/m <sup>3</sup>	Mist.
		2000 mg/m <sup>3</sup>	
		500 ppm	

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m <sup>3</sup>	Inhalable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m <sup>3</sup>	
	STEL	10 mg/m <sup>3</sup>	Mist.

**Biological limit values**

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

**Appropriate engineering controls**

Good general ventilation 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. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield. Face shield is recommended.

<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

<b>Appearance</b>	Oily.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Brown.
<b>Odor</b>	Oily.
<b>Odor threshold</b>	Not available.
<b>pH</b>	11 - 13
<b>Melting point/freezing point</b>	< -20°C
<b>Initial boiling point and boiling range</b>	438.8 °F (226 °C) @ 101.3 kPa
<b>Flash point</b>	190.0 °F (87.8 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	< 13.44 mg/l @ 25 deg C Dispersable; may gel
<b>Partition coefficient (n-octanol/water)</b>	10.59 @25 deg C
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	2013.3 mm <sup>2</sup> /s @ 25 deg C
<b>Other information</b>	
<b>Density</b>	8.31 lbs/gal @ 20 deg C
<b>Explosive properties</b>	Not explosive.
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	1 @20 deg C

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.

<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Knowledge about health hazard is incomplete.

**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. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** Not known.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
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Benzene, Mono-C10-13-alkyl Derivs., Fractionation Bottoms, Heavy Ends, Sulfonated, Sodium Salts (CAS 148520-82-5)

#### Acute

##### **Dermal**

LD50 Rat > 2000 mg/kg

##### **Oral**

LD50 Rat > 5000 mg/kg

Benzenesulfonic Acid, C10-14-alkyl Derivs., Sodium Salts (CAS 69669-44-9)

#### Acute

##### **Oral**

LD50 Rat > 5000 mg/kg

Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)

#### Acute

##### **Dermal**

LD50 Rabbit > 2000 mg/kg

##### **Inhalation**

###### *Aerosol*

LC50 Rat > 5.53 mg/l, 4 Hours

##### **Oral**

LD50 Rat > 5000 mg/kg

<b>Impurities</b>	<b>Species</b>	<b>Test Results</b>
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Alkylbenzene 1

#### Acute

##### **Dermal**

LD50 Rat > 3600 mg/kg

##### **Oral**

LD50 Rat > 2000 mg/kg

Alkylbenzene 2

#### Acute

##### **Dermal**

LD50 Rat > 3600 mg/kg

> 3600 mg/kg, 24 Hours

Impurities	Species	Test Results
<b>Oral</b> LD50	Rat	> 2000 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer. Knowledge about health hazard is incomplete.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	No data available to indicate product or any components present at greater than 0.1% are carcinogenic. Not classifiable as to carcinogenicity to humans. Knowledge about carcinogenicity is incomplete.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Not listed.		
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
Not listed.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Knowledge about health hazard is incomplete.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Not an aspiration hazard. Knowledge about health hazard is incomplete.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful.	

## 12. Ecological information

Components	Species	Test Results
Benzene, Mono-C10-13-alkyl Derivs., Fractionation Bottoms, Heavy Ends, Sulfonated, Sodium Salts (CAS 148520-82-5)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Green algae ( <i>Scenedesmus acutus</i> ) > 100 mg/l, 72 h
Crustacea	EC50	Daphnia magna > 100 mg/l, 48 h
Fish	LC50	Fish > 100 mg/l, 96 h
Benzenesulfonic Acid, C10-14-alkyl Derivs., Sodium Salts (CAS 69669-44-9)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Algae 100 mg/l, 96 h
Crustacea	EC50	Daphnia 100 mg/l, 48 h
<i>Chronic</i>		
Algae	NOEC	Algae 100 mg/l, 96 h
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	NOEL	Algae >= 100 mg/l, 72 h
Crustacea	EC50	Daphnia > 10000 mg/l, 48 h
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> ) > 100 mg/l, 96 h
<i>Chronic</i>		
Crustacea	NOEC	Daphnia 10 mg/l, 21 d

Impurities	Species		Test Results
Alkylbenzene 1			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	> 2.08 mg/l, 72 h
Crustacea	EC50	Daphnia	1.4 mg/l, 48 h
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	> 100 mg/l, 96 h
<i>Chronic</i>			
Crustacea	NOEC	Daphnia	0.0075 mg/l, 21 d
Alkylbenzene 2			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	> 2.08 mg/l, 72 h
Crustacea	EC50	Daphnia	1.4 mg/l, 48 h
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	> 100 mg/l, 96 h
<i>Chronic</i>			
Crustacea	NOEC	Daphnia	0.0075 mg/l, 21 d

**Persistence and degradability** This product is not expected to be readily biodegradable.

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

ARISTONATE® H 10.59 @25 deg C

**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. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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 established.

### 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)** All components of the mixture on the TSCA 8(b) inventory are designated "active".

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**  
Not regulated.

**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.

**California Proposition 65**

Pilot Chemical does not provide Proposition 65 information on our safety data sheets. Proposition 65 statements are available upon request by contacting [reginfo@pilotchemical.com](mailto:reginfo@pilotchemical.com).

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date** 09-02-2014  
**Revision date** 09-25-2019  
**Version #** 07  
**HMIS® ratings** Health: 3  
Flammability: 1  
Physical hazard: 0  
**NFPA ratings** Health: 3  
Flammability: 1  
Instability: 0

**Disclaimer**

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**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.