

1. Identification

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

2. Hazard(s) identification

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



Signal word	Danger	
Hazard statement	Combustible liquid. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life.	
Precautionary statement		
Prevention	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.	
Response	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.	
Storage	Store in a well-ventilated place. Keep cool.	
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

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 (CO₂).

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.

Environmental precautions

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

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/m3	Mist.
		2000 mg/m3	
		500 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	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/m3	
	STEL	10 mg/m3	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.

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	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.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	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

Appearance	Oily.
Physical state	Liquid.
Form	Liquid.
Color	Brown.
Odor	Oily.
Odor threshold	Not available.
pH	11 - 13
Melting point/freezing point	< -20°C
Initial boiling point and boiling range	438.8 °F (226 °C) @ 101.3 kPa
Flash point	190.0 °F (87.8 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
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	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	< 13.44 mg/l @ 25 deg C Dispersable; may gel
Partition coefficient (n-octanol/water)	10.59 @25 deg C
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	2013.3 mm²/s @ 25 deg C
Other information	
Density	8.31 lbs/gal @ 20 deg C
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	1 @20 deg C

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	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	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.

Components	Species	Test Results
Benzene, Mono-C10-13-alkyl Derivs., Fractionation Bottoms, Heavy Ends, Sulfonated, Sodium Salts (CAS 148520-82-5)		
<u>Acute</u>		
Dermal		
LD50	Rat	> 2000 mg/kg
Oral		
LD50	Rat	> 5000 mg/kg
Benzenesulfonic Acid, C10-14-alkyl Derivs., Sodium Salts (CAS 69669-44-9)		
<u>Acute</u>		
Oral		
LD50	Rat	> 5000 mg/kg
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 5.53 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Impurities	Species	Test Results
Alkylbenzene 1		
<u>Acute</u>		
Dermal		
LD50	Rat	> 3600 mg/kg
Oral		
LD50	Rat	> 2000 mg/kg
Alkylbenzene 2		
<u>Acute</u>		
Dermal		
LD50	Rat	> 3600 mg/kg > 3600 mg/kg, 24 Hours

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

12. Ecological information

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

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

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

The Pilot Chemical Corp. product referred to in this document is sold pursuant to Pilot Chemical Corp.'s Standard Terms and Conditions ("Terms"); however, the information contained in this document shall not be considered part of said Terms. Although the information is believed to be accurate and reliable as of the date compiled, PILOT CHEMICAL CORP. MAKES NO GUARANTEE, REPRESENTATION, OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE ACCURACY, RELIABILITY, SUFFICIENCY, SUITABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY INFORMATION IN THIS DOCUMENT OR THE PRODUCT TO WHICH THIS DOCUMENT RELATES. Users should make their own investigations, tests and determinations as to the information's completeness and the product's suitability for their particular purposes. It is the user's responsibility to ensure that all activities comply with applicable laws. Pilot Chemical Corp. makes no warranty or representation that the information or product may be used without infringing the intellectual property rights of Pilot Chemical Corp or others. This document is provided gratuitously for guidance only and Pilot Chemical Corp. assumes no liability for its use.

Revision information

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