

1. Identification

Product identifier **ARISTONATE® S-5000**

Other means of identification

Product Code 586S40

Recommended use Emulsifier, Corrosion Inhibitor

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Pilot Chemical Company

Address 2744 East Kemper Road
 Sharonville, OH 45241
 United States

Telephone (513) 326-0600 (8 AM to 5 PM Eastern)
 1-800-707-4568

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 Not classified.

Health hazards Serious eye damage/eye irritation Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes serious eye damage.

Precautionary statement

Prevention Wear eye/face protection.

Response 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.

Storage Store away from incompatible materials.

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

Environmental hazards Hazardous to the aquatic environment, acute Category 3
 hazard

Hazardous to the aquatic environment, Category 3
 long-term hazard

Hazard(s) not otherwise classified (HNOC) Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Supplemental information 69% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 92% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|---|--------------------------|--------------|--------------|
| Distillates, Petroleum, Hydrotreated Heavy Naphthenic | | 64742-52-5 | Trade Secret |
| Sodium Alkylbenzene Sulfonate 1 | | Trade Secret | Trade Secret |
| Sodium Alkylbenzene Sulfonate 2 | | Trade Secret | Trade Secret |
| Other components below reportable levels | | | 58 |

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

Composition comments Occupational Exposure Limits for impurities are listed in Section 8. Additional compounds which may be formed during processing are listed in Section 8.

4. First-aid measures

| | |
|---|---|
| Inhalation | Move to fresh air. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off with soap and water. Get medical attention if irritation develops and persists. |
| 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. |
| 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. |

5. Fire-fighting measures

| | |
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| 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. |
| 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 | 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

| | |
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| 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. 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 | <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> |
| 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. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. |

7. Handling and storage

Precautions for safe handling

Do not get this material in contact with eyes. 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

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational 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. |
| | TWA | 5 mg/m3 | Mist. |

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

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

Skin protection

Hand protection

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

Other

Wear suitable protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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.

9. Physical and chemical properties

Appearance

Oily.

Physical state

Liquid.

Form

Liquid.

Color

Brown.

Odor

Oily.

Odor threshold

Not available.

| | |
|---|--|
| pH | 11 - 13 estimated |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | > 520 °F (> 271.11 °C) estimated |
| Flash point | > 320.0 °F (> 160.0 °C) Cleveland Open 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) | Immiscible |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Other information | |
| Density | 8.50 lb/gal |
| Specific gravity | 1.02 |

10. Stability and reactivity

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|---|---|
| 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 | 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

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| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | No adverse effects due to skin contact are expected. |
| Eye contact | Causes serious eye damage. |
| Ingestion | Expected to be a low ingestion hazard. |

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|---|--|
| 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. |
|---|--|

Information on toxicological effects

Acute toxicity

| Components | Species | Test Results |
|--|---------|-------------------|
| Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | 2.18 mg/l, 4 h |
| Oral | | |
| LD50 | Rat | > 5000 mg/kg |
| Sodium Alkylbenzene Sulfonate 1 | | |
| Acute | | |
| Dermal | | |
| LD50 | Rat | 1000 - 1600 mg/kg |
| Oral | | |
| LD50 | Rat | 520 mg/kg |
| Sodium Alkylbenzene Sulfonate 2 | | |
| Acute | | |
| Dermal | | |
| LD50 | Rat | > 2000 mg/kg |
| Oral | | |
| LD50 | Rat | 1080 mg/kg |

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

| | |
|---|--|
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Causes serious eye damage. |
| Respiratory or skin sensitization | |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) | |
| Not listed. | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Not an aspiration hazard. |
| Chronic effects | Prolonged inhalation may be harmful. |

12. Ecological information

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| Ecotoxicity | Harmful to aquatic life with long lasting effects. |
|--------------------|--|

| Components | Species | Test Results |
|--|---------|---|
| Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| 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 |

| Components | | Species | Test Results |
|---------------------------------|------|---|------------------|
| <i>Chronic</i> | | | |
| Crustacea | NOEC | Daphnia | 10 mg/l, 21 d |
| Sodium Alkylbenzene Sulfonate 1 | | | |
| Aquatic | | | |
| <i>Acute</i> | | | |
| Algae | EC50 | Algae | > 160 mg/l, 72 h |
| Crustacea | EC50 | Daphnia | 3.6 mg/l, 48 h |
| Fish | LC50 | Bluegill (<i>Lepomis macrochirus</i>) | 1.67 mg/l, 96 h |
| <i>Chronic</i> | | | |
| Crustacea | NOEC | Daphnia | 1.5 mg/l, 21 d |
| Fish | NOEC | Fish | 0.23 mg/l, 72 d |
| Sodium Alkylbenzene Sulfonate 2 | | | |
| Aquatic | | | |
| <i>Acute</i> | | | |
| Algae | EC50 | Algae | 29 mg/l, 96 h |
| Crustacea | EC50 | Daphnia | 2.9 mg/l, 48 h |
| Fish | LC50 | Bluegill (<i>Lepomis macrochirus</i>) | 1.67 mg/l, 96 h |
| <i>Chronic</i> | | | |
| Algae | NOEC | Algae | 3.1 mg/l, 15 d |
| Crustacea | NOEC | Daphnia | 1.41 mg/l, 21 d |
| Fish | NOEC | Rainbow trout,donaldson trout (<i>Oncorhynchus mykiss</i>) | 0.23 mg/l, 72 d |

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

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

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. 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.
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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

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.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

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

US. Massachusetts RTK - Substance List

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

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | No |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | Yes |

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | 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 | 08-28-2014 |
| Revision date | 07-21-2015 |
| Version # | 05 |
| NFPA ratings | Health: 3 Flammability: 1 Instability: 0 |
| Disclaimer | The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. |
| Revision Information | Physical & Chemical Properties: Multiple Properties |