1. Chemical and company identification

Name of chemical (Product name)	**ARISTONATE® M**	
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 address	sdsinfo@pilotchemical.com	
Emergency telephone number	CHEMTREC International:	1-703-527-3887
CHEMTREC Japan:	+(81)-345209637	
Product Code	516S30	

Recommended use of the chemical and restrictions on use

Intended use	Emulsifier, Corrosion Inhibitor

2. Hazards identification

GHS classification

Physical hazards	The product is not classified according to GHS.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3

GHS label elements

Symbols

Signal words	Danger
Hazard statement	Causes skin irritation. Causes serious eye damage. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention	Wash thoroughly after handling. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves.
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 occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Storage	Store away from incompatible materials.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards which do not result in classification	None known.
Supplemental information	None.

Main symptoms and emergency overview

Main symptoms	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.
Emergency overview	Causes serious eye damage. Causes skin irritation. Dangerous for the environment if discharged into watercourses.

3. Composition/information on ingredients

Substance or mixture	Mixture

Components	CAS Number	Gazette notification ENCS no.	Gazette notification ISHL no.	Concentration (%)
Benzene, Mono-C10-13-alkyl Derivs., Fractionation Bottoms, Heavy Ends, Sulfonated, Sodium Salts	148520-82-5	(3)-1949		60 - 65
Distillates, Petroleum, Hydrotreated Heavy Naphthenic	64742-52-5	(9)-1689	(9)-1703	Trade Secret
Sodium Alkylbenzene Sulfonate 1	Trade Secret	(3)-1949	(3)-1949	Trade Secret
Other components below reportable levels				0 - 5

Impurities	CAS Number	Gazette notification ENCS no.	Gazette notification ISHL no.	Concentration (%)
Alkylbenzene 1	Trade Secret	(3)-21		Trade Secret

Chemical formula UVCB (64742-52-5)

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

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

If on skin Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

If in eyes 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.

If swallowed 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.

Protection of first-aid responders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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

5. Fire-fighting measures

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

Extinguishing media to avoid Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards During fire, gases hazardous to health may be formed.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

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

General fire hazards No unusual fire or explosion hazards noted.

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

6. Accidental release measures

Personal precautions, protective equipment and emergency measures 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.

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.

Methods or materials for containment and cleaning up 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. Cover with plastic sheet to prevent spreading. 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.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation)	Provide adequate ventilation.
Safe handling advice	Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Avoid release to the environment. Observe good industrial hygiene practices. Use personal protection recommended in Section 8 of the SDS.
Contact avoidance measures	For further information, please refer to section 10 of the SDS.
Hygiene measures	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.

Storage

Safe storage conditions	Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).
Safe packaging materials	Store in original tightly closed container.

8. Exposure controls/personal protection

Occupational exposure limits

Japan. OELs - JSOH (Japan Society of Occupational Health: Recommendation of Occupational Exposure Limits)

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	3 mg/m3	Mist.

US. ACGIH Threshold Limit Values

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

Engineering measures 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.

Personal protective equipment

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Eye protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin and body protection	Wear appropriate chemical resistant clothing.

9. Physical and chemical properties

Appearance	Oily.
Physical state	Liquid.
Form	Liquid.
Color	Brown.
Odor	Oily.
pH	11 - 13
Melting point/Freezing point	Not available.
Boiling point, initial boiling point, and boiling range	520 °F (271.11 °C)
Flash point	> 320.0 °F (> 160.0 °C) Cleveland Open Cup
Combustion characteristics (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.
Specific gravity	1.06
Solubility(ies)	
Solubility (water)	Dispersable; may gel
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity (Coefficient of viscosity)	Not available.
Other information	
Density	8.85 lb/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

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	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Components	**Species**	**Test Results**
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
Sodium Alkylbenzene Sulfonate 1		
Acute		
Dermal		
LD50	Rat	1000 - 1600 mg/kg
Oral		
LD50	Rat	520 mg/kg

Impurities	**Species**	**Test Results**
Alkylbenzene 1		
Acute		
Dermal		
LD50	Rat	> 3600 mg/kg
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.
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.
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.

12. Ecological information

Ecotoxicological data

Components		**Species**	**Test Results**
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
Sodium Alkylbenzene Sulfonate 1			
Aquatic			
Acute			
Algae	EC50	Algae	> 160 mg/l, 72 h
Crustacea	EC50	Daphnia	3.6 mg/l, 48 h
Fish	LC50	Bluegill (Lepomis macrochirus)	1.67 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia	1.5 mg/l, 21 d
Fish	NOEC	Fish	0.23 mg/l, 72 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

Ecotoxicity	Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Persistence and degradability	This product is not expected to be readily biodegradable.
Bioaccumulation	
Mobility in soil	This product is miscible in water.
Hazardous to the ozone layer	No data available.
Other hazardous 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

Dispose in accordance with all applicable regulations.

Residual waste	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.

Local disposal regulations Contract with a disposal operator licensed by the Law on Disposal and Cleaning. 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. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

14. Transport information

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.

National regulations Follow regulation in section 15 for domestic transportation.

15. Regulatory information

Industrial Safety and Health Act

Notifiable substances
Not regulated.

Labeling substances
Not regulated.

Poisonous and Deleterious Substances Control Act

Specified poisonous substances
Not regulated.

Poisonous substances
Not regulated.

Deleterious substances
Not regulated.

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Class I specified chemical substances
Not regulated.

Class II specified chemical substances
Not regulated.

Monitoring chemical substances
Not regulated.

Priority Assessment Chemical Substances (PACs)
Not regulated.

Reporting Exempted Substances
Not regulated.

Law concerning Pollutant Release and Transfer Register

Specified class 1 substances (substance name, ordinance number and content)
Not regulated.

Class 1 substances (substance name, ordinance number and content)
Not regulated.

Class 2 substances (substance name, ordinance number and content)
Not regulated.

Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule Not regulated.

Air Law, Enforcement Rule Not regulated.

Explosives Control Act
Not regulated.

Act on Prevention of Marine Pollution and Maritime Disaster
ALKYLBENZENE SULFONIC ACID, SODIUM SALT SOLUTION Category: Y

16. Other information

Bibliography

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012
JIS Z 7252:2014 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)”
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)

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

Product and Company Identification: Product Uses
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Regulatory Information: United States
Material Attributes & Uses; Experimental Data: Experimental Data
REACH: Registration Substance