SAFETY DATA SHEET

1. Identification

Product identifier **PAH Mixture #4 - 550**

Other means of identification

Item M-PAH5504A99

Recommended use For Laboratory Use Only

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc.

Address 660 Tower Lane
West Chester, PA 19380
United States

Telephone Toll Free 800-452-9994
Direct 610-692-3026

Website www.chemservice.com

E-mail info@chemservice.com

Emergency phone number Chemtrec US 800-424-9300
Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 4
	Serious eye damage/eye irritation	Category 2A
	Carcinogenicity	Category 2
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Causes serious eye irritation. Harmful if inhaled. Suspected of causing cancer. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Rinse mouth. If eye irritation persists: Get medical advice/attention. Take off immediately all 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. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	0.22% of the mixture consists of component(s) of unknown acute oral toxicity. 0.23% of the mixture consists of component(s) of unknown acute dermal toxicity. 0.1% of the mixture consists of component(s) of unknown acute inhalation toxicity. 99.77% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 99.77% 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	%
Acetonitrile		75-05-8	99 - 100
Anthracene		120-12-7	>= 0.005
Chrysene		218-01-9	>= 0.005
Phenanthrene		85-01-8	>= 0.005
Pyrene		129-00-0	>= 0.005
Acenaphthene		83-32-9	0.1
Acenaphthylene		208-96-8	0.1
Naphthalene		91-20-3	0.1
Fluorene		86-73-7	0.01
1,2:5,6-Dibenzanthracene		53-70-3	0.001
Indeno(1,2,3-C,D)pyrene		193-39-5	0.001
1,12-Benzoperylene		191-24-2	0.0005
Benzo(a)pyrene		50-32-8	0.0005
Fluoranthene		206-44-0	0.0003
1,2-Benzanthracene		56-55-3	0.0001
Benzo(b)fluoranthene		205-99-2	0.0001
Benzo(k)fluoranthene		207-08-9	0.0001

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. 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 if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Convulsions. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. 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	Highly flammable liquid and vapor.

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 inhalation of vapors and spray mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. 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. 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. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original 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

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

Components	Type	Value
Acetonitrile (CAS 75-05-8)	PEL	70 mg/m3 40 ppm
Naphthalene (CAS 91-20-3)	PEL	50 mg/m3 10 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
Acetonitrile (CAS 75-05-8)	TWA	20 ppm
Naphthalene (CAS 91-20-3)	TWA	10 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Acetonitrile (CAS 75-05-8)	TWA	34 mg/m3 20 ppm
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3 15 ppm
	TWA	50 mg/m3 10 ppm

Biological limit values

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

Exposure guidelines

US - California OELs: Skin designation

Acetonitrile (CAS 75-05-8)	Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Acetonitrile (CAS 75-05-8)	Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

Acetonitrile (CAS 75-05-8)	Can be absorbed through the skin.
Naphthalene (CAS 91-20-3)	Can be absorbed through the skin.

Appropriate engineering controls	Explosion-proof general and local exhaust ventilation. 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. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Keep away from food and drink. 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	
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-49 °F (-45 °C) estimated
Initial boiling point and boiling range	178.88 °F (81.6 °C) estimated
Flash point	42.0 °F (5.6 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	3 % estimated
Flammability limit - upper (%)	16 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	118.39 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	975.2 °F (524 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.78815 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated

Oxidizing properties	Not oxidizing.
Percent volatile	99.67 % estimated
Specific gravity	0.79 estimated
VOC (Weight %)	99.67 % estimated

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	Hazardous polymerization does not occur.
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	Harmful if inhaled.
Skin contact	Toxic in contact with skin.
Eye contact	Causes serious eye irritation.
Ingestion	Toxic if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Convulsions. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity Toxic in contact with skin. Toxic if swallowed. Harmful if inhaled.

Components	Species	Test Results
Acetonitrile (CAS 75-05-8)		
Acute		
Dermal		
LD50	Rabbit	390 mg/kg
		0.5 ml/kg
Inhalation		
LC100	Dog	16000 ppm, 4 Hours
LC50	Guinea pig	5655 ppm, 4 Hours
	Mouse	3587 ppm, 4 Hours
		2693 ppm, 1 Hours
	Rabbit	2825 ppm, 4 Hours
	Rat	17100 ppm, 4 Hours
		7500 ppm, 8 Hours
		330 ppm, 90 Days
		75 mg/l
Oral		
LD50	Guinea pig	140 mg/kg
		0.177 ml/kg
	Mouse	269 mg/kg
	Rat	158 mg/kg
		1.68 - 4.49 ml/kg
Other		
LD50	Mouse	0.25 g/kg

Components	Species	Test Results
	Rat	1100 mg/kg
		0.85 ml/kg
Anthracene (CAS 120-12-7)		
Acute		
Dermal		
LD50	Rat	> 1320 mg/kg, 24 Hours
Oral		
LD50	Mouse	> 17 g/kg
	Rat	> 16000 mg/kg
Benzo(a)pyrene (CAS 50-32-8)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
	Rat	> 2000 mg/kg
Oral		
LD50	Mouse	433 mg/kg
	Rat	725 mg/kg
Fluoranthene (CAS 206-44-0)		
Acute		
Dermal		
LD50	Rabbit	3180 mg/kg
Naphthalene (CAS 91-20-3)		
Acute		
Dermal		
LD50	Rabbit	> 2 g/kg
	Rat	> 16000 mg/kg, 24 Hours
		> 2500 mg/kg
Inhalation		
Vapor		
LC50	Rat	> 78 ppm, 4 Hours
		> 0.4 mg/l, 4 Hours
Oral		
LD50	Guinea pig	1200 mg/kg
	Mouse	533 mg/kg
	Rat	> 2000 mg/kg
		490 mg/kg
Phenanthrene (CAS 85-01-8)		
Acute		
Oral		
LD50	Mouse	700 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 irritation.

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 Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

1,12-Benzoperylene (CAS 191-24-2)	3 Not classifiable as to carcinogenicity to humans.
1,2:5,6-Dibenzanthracene (CAS 53-70-3)	2A Probably carcinogenic to humans.
1,2-Benzanthracene (CAS 56-55-3)	2B Possibly carcinogenic to humans.
Acenaphthene (CAS 83-32-9)	3 Not classifiable as to carcinogenicity to humans.
Anthracene (CAS 120-12-7)	3 Not classifiable as to carcinogenicity to humans.
Benzo(a)pyrene (CAS 50-32-8)	1 Carcinogenic to humans.
Benzo(b)fluoranthene (CAS 205-99-2)	2B Possibly carcinogenic to humans.
Benzo(k)fluoranthene (CAS 207-08-9)	2B Possibly carcinogenic to humans.
Chrysene (CAS 218-01-9)	2B Possibly carcinogenic to humans.
Fluoranthene (CAS 206-44-0)	3 Not classifiable as to carcinogenicity to humans.
Fluorene (CAS 86-73-7)	3 Not classifiable as to carcinogenicity to humans.
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)	2B Possibly carcinogenic to humans.
Naphthalene (CAS 91-20-3)	2B Possibly carcinogenic to humans.
Phenanthrene (CAS 85-01-8)	3 Not classifiable as to carcinogenicity to humans.
Pyrene (CAS 129-00-0)	3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

1,2:5,6-Dibenzanthracene (CAS 53-70-3)	Reasonably Anticipated to be a Human Carcinogen.
1,2-Benzanthracene (CAS 56-55-3)	Reasonably Anticipated to be a Human Carcinogen.
Benzo(a)pyrene (CAS 50-32-8)	Reasonably Anticipated to be a Human Carcinogen.
Benzo(b)fluoranthene (CAS 205-99-2)	Reasonably Anticipated to be a Human Carcinogen.
Benzo(k)fluoranthene (CAS 207-08-9)	Reasonably Anticipated to be a Human Carcinogen.
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)	Reasonably Anticipated to be a Human Carcinogen.
Naphthalene (CAS 91-20-3)	Reasonably Anticipated to be a Human Carcinogen.

US. 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

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
Acenaphthene (CAS 83-32-9)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.102 - 1.475 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.52 - 0.71 mg/l, 96 hours
Acetonitrile (CAS 75-05-8)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	> 100 mg/l, 96 hours
Anthracene (CAS 120-12-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.081 - 0.112 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.0045 mg/l, 96 hours
Fluoranthene (CAS 206-44-0)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	0.0054 - 0.0085 mg/l, 96 hours
Fluorene (CAS 86-73-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	0.212 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.55 - 1.21 mg/l, 96 hours
Naphthalene (CAS 91-20-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.09 - 3.4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha)	1.11 - 1.68 mg/l, 96 hours
Phenanthrene (CAS 85-01-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.185 - 0.243 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	0.438 - 0.523 mg/l, 96 hours
Pyrene (CAS 129-00-0)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	> 2 mg/l, 96 hours

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

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
1,12-Benzoperylene	6.63
1,2:5,6-Dibenzanthracene	6.5
1,2-Benzanthracene	5.79
Acenaphthene	3.92
Acenaphthylene	4.07
Acetonitrile	-0.34
Anthracene	4.45
Benzo(a)pyrene	5.97
Benzo(b)fluoranthene	6.6
Benzo(k)fluoranthene	6.84
Chrysene	5.73
Fluoranthene	5.16
Naphthalene	3.3
Phenanthrene	4.57
Pyrene	4.88

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

UN number UN1648

UN proper shipping name Acetonitrile, solution (Acetonitrile RQ = 5017 LBS)

Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T7, TP2
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1648
UN proper shipping name	Acetonitrile solution (Acetonitrile)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1648
UN proper shipping name	ACETONITRILE SOLUTION (Acetonitrile)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-E, S-D
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT

IATA; IMDG

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

1,12-Benzoperylene (CAS 191-24-2)	Listed.
1,2:5,6-Dibenzanthracene (CAS 53-70-3)	Listed.
1,2-Benzanthracene (CAS 56-55-3)	Listed.
Acenaphthene (CAS 83-32-9)	Listed.
Acenaphthylene (CAS 208-96-8)	Listed.
Acetonitrile (CAS 75-05-8)	Listed.
Anthracene (CAS 120-12-7)	Listed.
Benzo(a)pyrene (CAS 50-32-8)	Listed.
Benzo(b)fluoranthene (CAS 205-99-2)	Listed.
Benzo(k)fluoranthene (CAS 207-08-9)	Listed.
Chrysene (CAS 218-01-9)	Listed.
Fluoranthene (CAS 206-44-0)	Listed.
Fluorene (CAS 86-73-7)	Listed.
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)	Listed.
Naphthalene (CAS 91-20-3)	Listed.
Phenanthrene (CAS 85-01-8)	Listed.
Pyrene (CAS 129-00-0)	Listed.

SARA 304 Emergency release notification

Pyrene (CAS 129-00-0)	5000 LBS

US. 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 - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Pyrene	129-00-0	5000		1000 lbs	10000 lbs

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Acetonitrile	75-05-8	99 - 100
Naphthalene	91-20-3	0.1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)

Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

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 - New Jersey RTK - Substances: Listed substance

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

US - Pennsylvania RTK - Hazardous Substances: Special hazard

1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)

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))

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

US. Massachusetts RTK - Substance List

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)

Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

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

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

US. Pennsylvania RTK - Hazardous Substances

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

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

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)
1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

US. Rhode Island RTK

1,12-Benzoperylene (CAS 191-24-2)
1,2:5,6-Dibenzanthracene (CAS 53-70-3)

1,2-Benzanthracene (CAS 56-55-3)
Acenaphthene (CAS 83-32-9)
Acenaphthylene (CAS 208-96-8)
Acetonitrile (CAS 75-05-8)
Anthracene (CAS 120-12-7)
Benzo(a)pyrene (CAS 50-32-8)
Benzo(b)fluoranthene (CAS 205-99-2)
Benzo(k)fluoranthene (CAS 207-08-9)
Chrysene (CAS 218-01-9)
Fluoranthene (CAS 206-44-0)
Fluorene (CAS 86-73-7)
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)
Naphthalene (CAS 91-20-3)
Phenanthrene (CAS 85-01-8)
Pyrene (CAS 129-00-0)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,2:5,6-Dibenzanthracene (CAS 53-70-3)	Listed: January 1, 1988
1,2-Benzanthracene (CAS 56-55-3)	Listed: July 1, 1987
Benzo(a)pyrene (CAS 50-32-8)	Listed: July 1, 1987
Benzo(b)fluoranthene (CAS 205-99-2)	Listed: July 1, 1987
Benzo(k)fluoranthene (CAS 207-08-9)	Listed: July 1, 1987
Chrysene (CAS 218-01-9)	Listed: January 1, 1990
Indeno(1,2,3-C,D)pyrene (CAS 193-39-5)	Listed: January 1, 1988
Naphthalene (CAS 91-20-3)	Listed: April 19, 2002

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)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
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)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*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 03-18-2016

Version # 01

NFPA ratings Health: 3
Flammability: 3
Instability: 0

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

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