

# SAFETY DATA SHEET

#### 1. Identification

Product identifier	PAH Mixture-8270	
Other means of identification		
Item	M-PAH8270AJ5	
Recommended use	For Laboratory Use Only	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/I	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 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 1
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 2
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Danger

Label elements

Signal word **Hazard statement** 

Highly flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic 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. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Call a poison center/doctor if you feel unwell. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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. Specific treatment (see this label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
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	0.4% of the mixture consists of component(s) of unknown acute oral toxicity. 50.2% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 50.2% 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	%
Benzene		71-43-2	40 - < 50
Methylene chloride	DICHLOROMETHANE; METHYLENE DICHLORIDE	75-09-2	40 - < 50
3-Methylcholanthrene		56-49-5	0.2
7,12-Dimethylbenz(a)anthracene		57-97-6	0.2

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

4. First-aid measures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash 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	Rinse mouth. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
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. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. 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. Wash contaminated clothing before reuse.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. 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 General fire hazards	Use standard firefighting procedures and consider the hazards of other involved materials. 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. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. 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. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.
	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. 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.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. 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. Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. 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. Do not breathe mist or vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
	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. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.
8. Exposure controls/perso	onal protection
Occupational exposure limits	

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Components Type Value			
Benzene (CAS 71-43-2)	STEL	5 ppm	
	TWA	1 ppm	
Methylene chloride (CAS 75-09-2)	STEL	125 ppm	
	TWA	25 ppm	

Components		Туре			
Benzene (CAS 71-43-2)		Ceilin	g		5 ppm
		TWA		1	0 ppm
US. ACGIH Threshold Li	mit Values	<b>T</b>			
Components		Туре		V	alue
Benzene (CAS 71-43-2)		STEL			.5 ppm
Matter and the COAO		TWA			.5 ppm
Methylene chloride (CAS 75-09-2)		TWA		5	0 ppm
US. NIOSH: Pocket Guid	e to Chemical Ha	azards			
Components		Туре		V	alue
Benzene (CAS 71-43-2)		STEL		1	ppm
. , ,		TWA			.1 ppm
ological limit values					
ACGIH Biological Expos	ure Indices				
Components	Value		Determinant	Specimen	Sampling Time
Benzene (CAS 71-43-2)	25 µg/g		S-Phenylmerca	Creatinine ir	۲ *
Mathulana ahlarida (OAO	0.0		pturic acid Dichlorometha	urine	+
				Urine	
Methylene chloride (CAS 75-09-2)	0.3 mg/l		ne	••••••	
75-09-2) * - For sampling details, pl	-	rce docu	ne	00	
75-09-2) * - For sampling details, pl	-	rce docu	ne		
75-09-2)	ease see the sour	rce docu	ne		
75-09-2) * - For sampling details, pl posure guidelines	ease see the sour in designation ·2)		ne iment. Can be	absorbed thro	ugh the skin.
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43-	ease see the sour in designation ·2) nit Values: Skin o		ne iment. Can be <b>tion</b>		
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin	ease see the sour in designation -2) nit Values: Skin o -2) Explosion-pr changes per applicable, u maintain airt established,	designa roof gen r hour) s use proc borne lev maintain	ne Iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm	absorbed thro absorbed thro nust ventilation. ntilation rates s cal exhaust ver nended exposu o an acceptable	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin Benzene (CAS 71-43- propriate engineering ntrols	ease see the sour in designation -2) nit Values: Skin o -2) Explosion-pr changes per applicable, u maintain airt established, shower mus es, such as pers	designa roof gen r hour) s use proc borne lev maintain t be ava <b>conal pro</b>	ne Iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm n airborne levels to ilable when handlir otective equipmen	absorbed thro absorbed thro nust ventilation ntilation rates s cal exhaust ver bended exposu o an acceptable ng this product.	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin Benzene (CAS 71-43- propriate engineering ntrols	ease see the sour in designation -2) nit Values: Skin o -2) Explosion-pr changes per applicable, u maintain airt established, shower mus es, such as pers	designa roof gen r hour) s use proc borne lev maintain t be ava <b>conal pro</b>	ne Iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm n airborne levels to ilable when handlir	absorbed thro absorbed thro nust ventilation ntilation rates s cal exhaust ver bended exposu o an acceptable ng this product.	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin Benzene (CAS 71-43- propriate engineering ntrols	ease see the sour in designation -2) nit Values: Skin o -2) Explosion-pr changes per applicable, u maintain airt established, shower mus es, such as pers	designa roof gen r hour) s use proc borne lev maintain t be ava <b>conal pro</b>	ne Iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm n airborne levels to ilable when handlir otective equipmen	absorbed thro absorbed thro nust ventilation ntilation rates s cal exhaust ver bended exposu o an acceptable ng this product.	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence
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75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin Benzene (CAS 71-43- propriate engineering ntrols lividual protection measur Eye/face protection Skin protection	ease see the sour in designation (2) nit Values: Skin ( (2) Explosion-pr changes per applicable, u maintain airt established, shower mus (es, such as pers Wear safety Wear approp	designa roof gen r hour) s use proc borne lev maintain t be ava <b>conal pro</b> glasses priate ch	ne iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm n airborne levels to ilable when handlir otective equipmen s with side shields (	absorbed thro absorbed thro nust ventilation. ntilation rates s cal exhaust ver nended exposu o an acceptable ng this product. nt or goggles).	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin Benzene (CAS 71-43- propriate engineering ntrols	ease see the sour in designation -2) nit Values: Skin of -2) Explosion-produces of applicable, u maintain airt established, shower mus es, such as pers Wear safety Wear approp Wear approp If engineerin limits (where	designa roof gen r hour) s use proc borne lev maintain t be ava conal pro glasses priate ch priate ch ng contro e applica	ne Iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm n airborne levels to ilable when handlir otective equipmen s with side shields ( memical resistant glo nemical resistant clo bls do not maintain	e absorbed thro absorbed thro sust ventilation. ntilation rates s cal exhaust ver ended exposu o an acceptable og this product. <b>nt</b> or goggles). oves. othing. airborne conce otable level (in	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If ntilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence entrations below recommended exposure countries where exposure limits have not
75-09-2) * - For sampling details, pl posure guidelines US - California OELs: Sk Benzene (CAS 71-43- US ACGIH Threshold Lin Benzene (CAS 71-43- propriate engineering ntrols lividual protection measur Eye/face protection Skin protection Hand protection Other	ease see the sour in designation (2) nit Values: Skin ( (2) Explosion-pr changes per applicable, u maintain airt established, shower mus (shower mus (shower mus) (shower mus) (wear safety) Wear approp Wear approp If engineerin limits (where been establi	designa roof gen r hour) s use proc borne lev maintain t be ava conal pro glasses priate ch priate ch priate ch og contro applica ished), a	ne iment. Can be tion Can be eral and local exha hould be used. Ver ess enclosures, loc vels below recomm n airborne levels to ilable when handlir otective equipmen s with side shields ( memical resistant glo nemical resistant glo be do not maintain able) or to an accep	e absorbed thro absorbed thro aust ventilation. ntilation rates s cal exhaust ver bended exposu of an acceptable og this product. <b>nt</b> or goggles). oves. othing. airborne conce bable level (in ator must be wo	ugh the skin. Good general ventilation (typically 10 ai hould be matched to conditions. If tilation, or other engineering controls to re limits. If exposure limits have not beer e level. Eye wash facilities and emergence elevel. Eye wash facilities and emergence contrations below recommended exposure countries where exposure limits have not prn.

Appearance	
Physical state	Liquid.
Form	Liquid
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	-139 °F (-95 °C) estimated

Initial boiling point and boiling range	103.55 °F (39.75 °C) estimated
Flash point	12.0 °F (-11.1 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	1.4 % estimated
Flammability limit - upper (%)	66.4 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	353.18 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	928 °F (497.78 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.102357 g/cm3 estimated
Flammability class	Flammable IB estimated
Percent volatile	99.6 % estimated
Specific gravity	1.1 estimated
VOC (Weight %)	99.6 % 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

Ingestion	Harmful if swallowed.
Inhalation	Prolonged inhalation may be harmful. May cause damage to organs by inhalation.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Information on toxicological off	acts

#### Information on toxicological effects

Acute toxicity	Harmful if swallowed. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.		
Components	Species	Test Results	
Benzene (CAS 71-43-2)			
Acute			
Inhalation			
LC50	Mouse	9980 ppm	

Components	Species	Test Results
		9980 ppm, 7 Hours
	Rat	43767 mg/m3, 4 Hours
		13700 ppm, 4 Hours
		10000 ppm, 7 Hours
Oral		
LD50	Mouse	4700 mg/kg
	Rat	690 - 1230 mg/kg
Other		
LD50	Mouse	340 mg/kg
	Rat	2.89 mg/kg
Methylene chloride (CAS 75-09-2)		
Acute		
Dermal	- /	<b>/</b>
LD50	Rat	> 2000 mg/kg
Inhalation	Quines sin	
LC50	Guinea pig	11600 ppm, 6 Hours
		40.2 mg/l, 6 Hours
	Mouse	14400 ppm, 7 Hours
		51.5 mg/l, 2 Hours
		49.1 mg/l, 6 Hours
		49 mg/l, 7 Hours
	Rat	2000 mg/l, 15 Minutes
		88 mg/l, 900 Days
		79 mg/l, 2 Hours
		52 mg/l, 6 Hours
LD50	Mouse	16000 ppm, 7 Hours
Oral	model	
LD50	Rat	1600 mg/kg
Other		
LD50	Mouse	437 mg/kg
* Estimates for product may b Skin corrosion/irritation	e based on additional componen Causes skin irritation.	nt data not snown.
Serious eye damage/eye	Causes serious eye irritation.	
rritation		
Respiratory or skin sensitization	ı	
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to	o cause skin sensitization.
Germ cell mutagenicity	May cause genetic defects.	
Carcinogenicity	May cause cancer.	
IARC Monographs. Overall	Evaluation of Carcinogenicity	
Benzene (CAS 71-43-2)		1 Carcinogenic to humans.
Methylene chloride (CAS US. National Toxicology Pro	75-09-2) ogram (NTP) Report on Carcin	2B Possibly carcinogenic to humans. ogens
Benzene (CAS 71-43-2) Methylene chloride (CAS	75-09-2) Ilated Substances (29 CFR 19	Known To Be Human Carcinogen. Reasonably Anticipated to be a Human Carcinogen. 10 1001-1050)
Benzene (CAS 71-43-2)	aatou ousstantes (23 OI N 13	Cancer
Methylene chloride (CAS	75-09-2)	Cancer
Reproductive toxicity	Suspected of damaging fertilit	y or the unborn child.
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Causes damage to organs thr	ough prolonged or repeated exposure.

Aspiration hazard	Not available.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes
	damage to organs through prolonged or repeated exposure.

#### 12. Ecological information

Crustacea

Fish

Ecotoxicity	Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.		
Components		Species	Test Results
Benzene (CAS 71-43-2	2)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	8.76 - 15.6 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	7.2 - 11.7 mg/l, 96 hours
Methylene chloride (CA	AS 75-09-2)		
Aquatic			

Water flea (Daphnia magna)

1250 mg/l, 48 hours

Fathead minnow (Pimephales promelas) 140.8 - 277.8 mg/l, 96 hours

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

EC50

LC50

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

Bioaccumulative potential	No data available.	
Partition coefficient n-oc	tanol / water (log Kow)	
3-Methylcholanthrene		6.42
7,12-Dimethylbenz(a)anthracene		5.8
Benzene		2.13
Methylene chloride		1.25
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. This material and its container must be disposed of as hazardous waste. 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.

#### US RCRA Hazardous Waste U List: Reference

3-Methylcholanthrene (CAS 56-49-5)	U157
7,12-Dimethylbenz(a)anthracene (CAS 57-97-6)	U094
Benzene (CAS 71-43-2)	U019
Methylene chloride (CAS 75-09-2)	U080

Waste from residues / unused<br/>productsDispose of in accordance with local regulations. Empty containers or liners may retain some<br/>product residues. This material and its container must be disposed of in a safe manner (see:<br/>Disposal instructions).Contaminated packagingEmpty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

#### 14. Transport information

DOT	
UN number	UN1992
UN proper shipping name	Flammable liquids, toxic, n.o.s. (Benzene RQ = 20 LBS, Methylene chloride RQ = 2008 LBS), MARINE POLLUTANT
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Label(s)	3, 6.1
Packing group	II
Environmental hazards	
Marine pollutant	Yes
Special precautions for use	r Read safety instructions, SDS and emergency procedures before handling.

Special provisions Packaging exceptions Packaging non bulk Packaging bulk IATA	IB2, T7, TP2, TP13 150 202 243
UN number	UN1992
UN proper shipping name	Flammable liquid, toxic, n.o.s. (Benzene, Methylene chloride)
Transport hazard class(es)	
Class	3
Subsidiary risk	6.1(PGI, II)
Packing group	
Environmental hazards	No.
ERG Code	3HP
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	UN1992
UN proper shipping name Transport hazard class(es)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Benzene, Methylene chloride), MARINE POLLUTANT
Class	3
Subsidiary risk	6.1(PGI, II)
Packing group	
Environmental hazards	
Environmental hazards Marine pollutant	Yes
	Yes F-E, S-D
Marine pollutant EmS	
Marine pollutant EmS	F-E, S-D
Marine pollutant EmS Special precautions for user	F-E, S-D Read safety instructions, SDS and emergency procedures before handling.
Marine pollutant EmS Special precautions for user Transport in bulk according to	F-E, S-D Read safety instructions, SDS and emergency procedures before handling.
Marine pollutant EmS Special precautions for user Transport in bulk according to Annex II of MARPOL 73/78 and	F-E, S-D Read safety instructions, SDS and emergency procedures before handling.





#### 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.

All components are on the U.S. EPA TSCA Inventory List. TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) 3-Methylcholanthrene (CAS 56-49-5) 1.0 % One-Time Export Notification only. CERCLA Hazardous Substance List (40 CFR 302.4) 3-Methylcholanthrene (CAS 56-49-5) Listed. 7,12-Dimethylbenz(a)anthracene (CAS 57-97-6) Listed. Benzene (CAS 71-43-2) Listed. Methylene chloride (CAS 75-09-2) Listed. SARA 304 Emergency release notification Not regulated. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Benzene (CAS 71-43-2) Cancer Methylene chloride (CAS 75-09-2) Cancer Benzene (CAS 71-43-2) Central nervous system Methylene chloride (CAS 75-09-2) Heart Benzene (CAS 71-43-2) Blood Methylene chloride (CAS 75-09-2) Central nervous system Benzene (CAS 71-43-2) Aspiration Methylene chloride (CAS 75-09-2) Liver Benzene (CAS 71-43-2) Skin Methylene chloride (CAS 75-09-2) Skin irritation Benzene (CAS 71-43-2) Eye Methylene chloride (CAS 75-09-2) Eye irritation respiratory tract irritation Benzene (CAS 71-43-2) Flammability Superfund Amendments and Reauthorization Act of 1986 (SARA) Immediate Hazard - Yes Hazard categories Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No SARA 302 Extremely hazardous substance Not listed. SARA 311/312 Hazardous No chemical SARA 313 (TRI reporting) **Chemical name CAS** number % by wt. 40 - < 50 Benzene 71-43-2 Methylene chloride 75-09-2 40 - < 50 7,12-Dimethylbenz(a)anthracene 57-97-6 0.2 Other federal regulations Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List 3-Methylcholanthrene (CAS 56-49-5) 7,12-Dimethylbenz(a)anthracene (CAS 57-97-6) Benzene (CAS 71-43-2) Methylene chloride (CAS 75-09-2) Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated. (SDWA)

US state regulations			
US. Massachusetts RTK - S	ubstance List		
3-Methylcholanthrene (C 7,12-Dimethylbenz(a)an Benzene (CAS 71-43-2) Methylene chloride (CAS <b>US. New Jersey Worker an</b>	hracene (CAS 57-97-6)	ct	
3-Methylcholanthrene (C 7,12-Dimethylbenz(a)ani Benzene (CAS 71-43-2) Methylene chloride (CAS	3-Methylcholanthrene (CAS 56-49-5) 7,12-Dimethylbenz(a)anthracene (CAS 57-97-6)		
US. Pennsylvania RTK - Ha 3-Methylcholanthrene (C 7,12-Dimethylbenz(a)ani Benzene (CAS 71-43-2) Methylene chloride (CAS	AS 56-49-5) hracene (CAS 57-97-6)		
US. Rhode Island RTK			
3-Methylcholanthrene (C 7,12-Dimethylbenz(a)ant Benzene (CAS 71-43-2) Methylene chloride (CAS	hracene (CAS 57-97-6)		
US. California Proposition WARNING: This product reproductive harm.		ne State of California to cause cancer a	and birth defects or other
US - California Proposi	tion 65 - CRT: Listed date/Card	cinogenic substance	
3-Methylcholanthrene (CAS 56-49-5) 7,12-Dimethylbenz(a)anthracene (CAS 57-97-6) Benzene (CAS 71-43-2) Methylene chloride (CAS 75-09-2)		Listed: January 1, 1990 Listed: January 1, 1990 Listed: February 27, 1987 Listed: April 1, 1988	
Benzene (CAS 71-4	US - California Proposition 65 - CRT: Listed date/Deve Benzene (CAS 71-43-2) US - California Proposition 65 - CRT: Listed date/Male		
•	Benzene (CAS 71-43-2)		
International Inventories			
Country(s) or region	Inventory name		On inventory (yes/no)*
Australia	Australian Inventory of Chemi	cal Substances (AICS)	No
Canada	Domestic Substances List (DS		Yes
Canada	Non-Domestic Substances List (NDSL)		No
China	Inventory of Existing Chemical Substances in China (IECSC)		No
Europe	European Inventory of Existing Commercial Chemical Yes Substances (EINECS)		
Europe	European List of Notified Che	mical Substances (ELINCS)	No
Japan	Inventory of Existing and New	Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)		No
New Zealand	New Zealand Inventory		No
Philippines	Philippine Inventory of Chemic (PICCS)	cals and Chemical Substances	No
United States & Puerto Rico	Toxic Substances Control Act	(TSCA) Inventory	Yes
		e inventory requirements administered by the listed or exempt from listing on the inventor	

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	11-04-2014
Version #	01
NFPA ratings	Health: 2 Flammability: 3 Instability: 0

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.

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