Material Safety Data Sheet

Version 3.3
Revision Date 03/30/2012
Print Date 06/06/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	EPA 8310 Polynuclear Aromatic Hydrocarbons Mix
Product Number	:	47543-U
Brand	:	Supelco
Supplier	:	Sigma-Aldrich 3050 Spruce Street SAINT LOUIS MO 63103 USA
Telephone	:	+1 800-325-5832
Fax	:	+1 800-325-5052
Emergency Phone # (For both supplier and manufacturer)	:	(314) 776-6555
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Flammable liquid, Carcinogen, Target Organ Effect, Harmful by ingestion., Irritant, Mutagen

Target Organs

Liver, pancreas, Blood, Central nervous system, Heart, Kidney, Eyes, Female reproductive system., Bone marrow

Other hazards which do not result in classification
Photosensitizer.

GHS Classification
Flammable liquids (Category 2)
Acute toxicity, Oral (Category 5)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Respiratory sensitization (Category 1)
Germ cell mutagenicity (Category 1B)
Carcinogenicity (Category 1A)
Reproductive toxicity (Category 1B)
Aspiration hazard (Category 1)
Acute aquatic toxicity (Category 1)
Chronic aquatic toxicity (Category 1)

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapour.
H303	May be harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.

H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P331	Do NOT induce vomiting.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	3
Physical hazards:	1

NFPA Rating

Health hazard:	2
Fire:	3
Reactivity Hazard:	0

Potential Health Effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component		Classification	Concentration
Methylene chloride			
CAS-No. EC-No. Index-No.	75-09-2 200-838-9 602-004-00-3	Acute Tox. 4; Skin Irrit. 2; Carc. 2; H302, H315, H351	30 - 60 %
Benzene			
CAS-No. EC-No. Index-No. Registration number	71-43-2 200-753-7 601-020-00-8 01-2119447106-44-XXXX	Flam. Liq. 2; Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Carc. 1A; STOT RE 1; Asp. Tox. 1; H225, H304, H315, H319, H340, H350, H372	30 - 60 %
Indeno[1,2,3-cd]pyrene			
CAS-No. EC-No.	193-39-5 205-893-2	Carc. 2; H351	0.1 - 1 %
Benz[a]anthracene			
CAS-No. EC-No. Index-No.	56-55-3 200-280-6 601-033-00-9	Carc. 1B; Aquatic Acute 1; Aquatic Chronic 1; H350, H410	0.1 - 1 %

Benzo[ghi]perylene			
CAS-No. EC-No.	191-24-2 205-883-8	Aquatic Acute 1; Aquatic Chronic 1; H410	0.1 - 1 %
Naphthalene			
CAS-No. EC-No. Index-No.	91-20-3 202-049-5 601-052-00-2	Flam. Sol. 1; Acute Tox. 4; Carc. 2; Aquatic Acute 1; Aquatic Chronic 1; H228, H302, H351, H410	0.1 - 1 %
Anthracene			
CAS-No. EC-No.	120-12-7 204-371-1	Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1; H315, H319, H335, H410	0.1 - 1 %
Dibenz[a,h]anthracene			
CAS-No. EC-No. Index-No.	53-70-3 200-181-8 601-041-00-2	Carc. 1B; Aquatic Acute 1; Aquatic Chronic 1; H350, H410	0.1 - 1 %
Fluoranthene			
CAS-No. EC-No.	206-44-0 205-912-4	Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1; H302, H410	0.1 - 1 %
Benzo[a]pyrene			
CAS-No. EC-No. Index-No.	50-32-8 200-028-5 601-032-00-3	Skin Sens. 1; Muta. 1B; Carc. 1B; Repr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H317, H340, H350, H360FD, H410	0.1 - 1 %
Benzo[k]fluoranthene			
CAS-No. EC-No. Index-No.	207-08-9 205-916-6 601-036-00-5	Carc. 1B; Aquatic Acute 1; Aquatic Chronic 1; H350, H410	0.1 - 1 %
Chrysene			
CAS-No. EC-No. Index-No.	218-01-9 205-923-4 601-048-00-0	Muta. 2; Carc. 1B; Aquatic Acute 1; Aquatic Chronic 1; H341, H350, H410	0.1 - 1 %
Benz[e]acephenanthrylene			
CAS-No. EC-No. Index-No.	205-99-2 205-911-9 601-034-00-4	Carc. 1B; Aquatic Acute 1; Aquatic Chronic 1; H350, H410	0.1 - 1 %
Pyrene			
CAS-No. EC-No.	129-00-0 204-927-3	Aquatic Acute 1; Aquatic Chronic 1; H410	0.1 - 1 %

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability
Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Further information
Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 2 - 8 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Remarks	Potential Occupational Carcinogen See Appendix A			
Methylene chloride	75-09-2	TWA	50 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Central Nervous System impairment Carboxyhemoglobinemia Substances for which there is a			

	Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans			
	Substance listed; for more information see OSHA document 1910.1052			
	See 1910.1052			
Benzene	71-43-2	TWA	0.5 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Leukemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed human carcinogen Danger of cutaneous absorption			
		STEL	2.5 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Leukemia Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed human carcinogen Danger of cutaneous absorption			
		TWA	10 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
	Z37.40-1969			
		CEIL	25 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
	Z37.40-1969			
		Peak	50 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z2
	Z37.40-1969			
	See 1910.1028. See Table Z-2 for the limits applicable in the operations or sectors excluded in 1910.1028 The final benzene standard in 1910.1028 applies to all occupational exposures to benzene except some subsegments of industry where exposures are consistently under the action level (i.e., distribution and sale of fuels, sealed containers and pipelines, coke production, oil and gas drilling and production, natural gas processing, and the percentage exclusion for liquid mixtures); for the excepted subsegments, the benzene limits in Table Z-2 apply.			
		TWA	0.1 ppm	USA. NIOSH Recommended Exposure Limits
	Potential Occupational Carcinogen See Appendix A			
		ST	1 ppm	USA. NIOSH Recommended Exposure Limits
	Potential Occupational Carcinogen See Appendix A			
Pyrene	129-00-0	TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
Remarks	Cancer Substances for which there is a Biological Exposure Index or Indices (see BEI® section), see BEI® for Polycyclic Aromatic Hydrocarbons (PAHs) Exposure by all routes should be carefully controlled to levels as low as possible. Confirmed animal carcinogen with unknown relevance to humans			
Chrysene	218-01-9	TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

				1910.1000
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
Remarks	Cancer Substances for which there is a Biological Exposure Index or Indices (see BEI® section), see BEI® for Polycyclic Aromatic Hydrocarbons (PAHs) Exposure by all routes should be carefully controlled to levels as low as possible. Suspected human carcinogen			
Benzo[a]pyrene	50-32-8	TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
Anthracene	120-12-7	TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
Naphthalene	91-20-3	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Eye & Upper Respiratory Tract irritation Hematologic effects Eye damage Not classifiable as a human carcinogen Danger of cutaneous absorption			
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Eye & Upper Respiratory Tract irritation Hematologic effects Eye damage Not classifiable as a human carcinogen Danger of cutaneous absorption			
		TWA	10 ppm 50 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	15 ppm 75 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	10 ppm 50 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	The value in mg/m3 is approximate.			
		TWA	10 ppm 50 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	15 ppm 75 mg/m3	USA. NIOSH Recommended Exposure Limits
Phenanthrene	85-01-8	TWA	0.2 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	liquid
Colour	no data available

Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	-11 °C (12 °F) - closed cup
Ignition temperature	no data available
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions

Vapours may form explosive mixture with air.

Conditions to avoid
Heat, flames and sparks. Extremes of temperature and direct sunlight.

Materials to avoid
Bases, Oxidizing agents, Alkali metals, Strong acids and strong bases, Strong oxidizing agents, Amines, Vinyl compounds, acids, Halogens, Aluminum, Magnesium, Hypochlorites, Metallic salts

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
no data available

Inhalation LC50
no data available

Dermal LD50
no data available

Other information on acute toxicity
no data available

Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
Eyes: no data available

Respiratory or skin sensitization
no data available

Germ cell mutagenicity
no data available

Carcinogenicity

IARC:	1 - Group 1: Carcinogenic to humans (Benzene)
IARC:	1 - Group 1: Carcinogenic to humans (Benzo[a]pyrene)
IARC:	2A - Group 2A: Probably carcinogenic to humans (Dibenz[a,h]anthracene)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Methylene chloride)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Benz[e]acephenanthrylene)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Chrysene)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Benzo[k]fluoranthene)
	2B - Group 2B: Possibly carcinogenic to humans (Benzo[k]fluoranthene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Anthracene)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Naphthalene)
	2B - Group 2B: Possibly carcinogenic to humans (Naphthalene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Benzo[ghi]perylene)
	2B - Group 2B: Possibly carcinogenic to humans (Benzo[ghi]perylene)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Benz[a]anthracene)
IARC:	2B - Group 2B: Possibly carcinogenic to humans (Indeno[1,2,3-cd]pyrene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Pyrene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Fluoranthene)

IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Anthracene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Benzo[ghi]perylene)
	2B - Group 2B: Possibly carcinogenic to humans (Benzo[ghi]perylene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Acenaphthene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Phenanthrene)
IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Fluorene)
NTP:	Known to be human carcinogen (Benzene)
NTP:	Known to be human carcinogen (Pyrene)
NTP:	Known to be human carcinogen (Chrysene)
	Reasonably anticipated to be a human carcinogen (Chrysene)
NTP:	Reasonably anticipated to be a human carcinogen (Methylene chloride)
NTP:	Reasonably anticipated to be human carcinogens. (Benz[e]acephenanthrylene)
	Reasonably anticipated to be a human carcinogen (Benz[e]acephenanthrylene)
NTP:	Known to be human carcinogen (Chrysene)
	Reasonably anticipated to be a human carcinogen (Chrysene)
NTP:	Reasonably anticipated to be human carcinogens. (Benzo[k]fluoranthene)
	Reasonably anticipated to be a human carcinogen (Benzo[k]fluoranthene)
NTP:	Reasonably anticipated to be human carcinogens. (Benzo[a]pyrene)
	Reasonably anticipated to be a human carcinogen (Benzo[a]pyrene)
NTP:	Reasonably anticipated to be human carcinogens. (Fluoranthene)
	Reasonably anticipated to be a human carcinogen (Fluoranthene)
NTP:	Reasonably anticipated to be human carcinogens. (Dibenz[a,h]anthracene)
	Reasonably anticipated to be a human carcinogen (Dibenz[a,h]anthracene)
NTP:	Reasonably anticipated to be a human carcinogen (Naphthalene)
NTP:	Reasonably anticipated to be a human carcinogen (Benzo[ghi]perylene)
NTP:	Reasonably anticipated to be human carcinogens. (Benz[a]anthracene)
	Reasonably anticipated to be a human carcinogen (Benz[a]anthracene)
NTP:	Reasonably anticipated to be human carcinogens. (Indeno[1,2,3-cd]pyrene)
	Reasonably anticipated to be a human carcinogen (Indeno[1,2,3-cd]pyrene)

Reproductive toxicity

no data available

Teratogenicity

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure
narcosis, Inhalation of high concentrations of benzene may have an initial stimulatory effect on the central nervous system characterized by exhilaration, nervous excitation and/or giddiness, depression, drowsiness, or fatigue. The victim may experience tightness in the chest, breathlessness, and loss of consciousness. Tremors, convulsions, and death due to respiratory paralysis or circulatory collapse can occur in a few minutes to several hours following severe exposures. Aspiration of small amounts of liquid immediately causes pulmonary edema and hemorrhage of pulmonary tissue. Direct skin contact may cause erythema. Repeated or prolonged skin contact may result in drying, scaling dermatitis, or development of secondary skin infections. The chief target organ is the hematopoietic system. Bleeding from the nose, gums, or mucous membranes and the development of purpuric spots, pancytopenia, leukopenia, thrombocytopenia, aplastic anemia, and leukemia may occur as the condition progresses. The bone marrow may appear normal, aplastic or hyperplastic, and may not correlate with peripheral blood-forming tissues. The onset of effects of prolonged benzene exposure may be delayed for many months or years after the actual exposure has ceased., Dichloromethane is metabolized in the body producing carbon monoxide which increases and sustains carboxyhemoglobin levels in the blood, reducing the oxygen-carrying capacity of the blood., Contact with eyes can cause:, Redness, Blurred vision, Provokes tears., Prolonged or repeated contact with skin may cause:, defatting, Dermatitis, Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea., Central nervous system depression, Paresthesia.

Synergistic effects
no data available

Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1992 Class: 3 (6.1) Packing group: II
Proper shipping name: Flammable liquids, toxic, n.o.s. (Benzene, Methylene chloride)
Reportable Quantity (RQ): 21 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG
UN number: 1992 Class: 3 (6.1) Packing group: II EMS-No: F-E, S-D
Proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (Benzene, Methylene chloride)
Marine pollutant: No

IATA
UN number: 1992 Class: 3 (6.1) Packing group: II
Proper shipping name: Flammable liquid, toxic, n.o.s. (Benzene, Methylene chloride)

15. REGULATORY INFORMATION

OSHA Hazards
Flammable liquid, Carcinogen, Target Organ Effect, Harmful by ingestion., Irritant, Mutagen

SARA 302 Components
The following components are subject to reporting levels established by SARA Title III, Section 302:

	CAS-No.	Revision Date
Pyrene	129-00-0	2007-03-01

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Benzene	71-43-2	2007-07-01
Benz[e]acephenanthrylene	205-99-2	2007-03-01
Chrysene	218-01-9	2007-03-01
Benzo[k]fluoranthene	207-08-9	2007-03-01
Benzo[a]pyrene	50-32-8	2007-03-01
Fluoranthene	206-44-0	2007-03-01
Dibenz[a,h]anthracene	53-70-3	2007-03-01
Naphthalene	91-20-3	2007-07-01
Benz[a]anthracene	56-55-3	2007-03-01
Indeno[1,2,3-cd]pyrene	193-39-5	2007-03-01

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard
Reportable Quantity : lowest RQ > 999999 lbs

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Methylene chloride	75-09-2	2007-07-01
Benzene	71-43-2	2007-07-01
Pyrene	129-00-0	2007-03-01
Benz[e]acephenanthrylene	205-99-2	2007-03-01
Chrysene	218-01-9	2007-03-01
Benzo[k]fluoranthene	207-08-9	2007-03-01
Benzo[a]pyrene	50-32-8	2007-03-01
Dibenz[a,h]anthracene	53-70-3	2007-03-01
Benz[a]anthracene	56-55-3	2007-03-01
Indeno[1,2,3-cd]pyrene	193-39-5	2007-03-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Indeno[1,2,3-cd]pyrene	193-39-5	2007-03-01
Fluorene	86-73-7	2007-03-01

Benz[a]anthracene	56-55-3	2007-03-01
Phenanthrene	85-01-8	2007-07-01
Acenaphthene	83-32-9	2007-03-01
Benzo[ghi]perylene	191-24-2	2007-03-01
Naphthalene	91-20-3	2007-07-01
Anthracene	120-12-7	2007-07-01
Dibenz[a,h]anthracene	53-70-3	2007-03-01
Fluoranthene	206-44-0	2007-03-01
Benzo[a]pyrene	50-32-8	2007-03-01
Benzo[k]fluoranthene	207-08-9	2007-03-01
Chrysene	218-01-9	2007-03-01
Benz[e]acephenanthrylene	205-99-2	2007-03-01
Pyrene	129-00-0	2007-03-01
Benzene	71-43-2	2007-07-01
Methylene chloride	75-09-2	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Methylene chloride	75-09-2	2007-07-01
Benzene	71-43-2	2007-07-01
Benz[e]acephenanthrylene	205-99-2	2007-03-01
Chrysene	218-01-9	2007-03-01
Benzo[k]fluoranthene	207-08-9	2007-03-01
Benzo[a]pyrene	50-32-8	2007-03-01
Dibenz[a,h]anthracene	53-70-3	2007-03-01
Naphthalene	91-20-3	2007-07-01
Benz[a]anthracene	56-55-3	2007-03-01
Indeno[1,2,3-cd]pyrene	193-39-5	2007-03-01

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.	CAS-No.	Revision Date
Indeno[1,2,3-cd]pyrene	193-39-5	2007-09-28
Benz[a]anthracene	56-55-3	1990-01-01
Phenanthrene	85-01-8	1990-01-01
Benzo[ghi]perylene	191-24-2	1990-01-01
Naphthalene	91-20-3	1990-01-01
Anthracene	120-12-7	1990-01-01
Dibenz[a,h]anthracene	53-70-3	1990-01-01
Fluoranthene	206-44-0	1990-01-01
Benzo[a]pyrene	50-32-8	1990-01-01
Benzo[k]fluoranthene	207-08-9	2007-09-28
Chrysene	218-01-9	2007-09-28
Benz[e]acephenanthrylene	205-99-2	2007-09-28
Pyrene	129-00-0	1990-01-01
Benzene	71-43-2	2009-02-01
Methylene chloride	75-09-2	2007-09-28

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.	CAS-No.	Revision Date
Benzene	71-43-2	2009-02-01

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Asp. Tox.	Aspiration hazard
Carc.	Carcinogenicity

Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
Flam. Sol.	Flammable solids
H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
Muta.	Germ cell mutagenicity
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.