

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : Custom BNA Mix 1  
Product code : AL0-130057  
Product group : Trade product

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : Laboratory Use  
Industrial/Professional use spec : Industrial  
For professional use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Phenova  
6390 Joyce Dr. Suite 100  
80403 Golden, CO - United States  
T 1-866-942-2978 - F 1-866-283-0269  
[info@phenova.com](mailto:info@phenova.com) - [www.phenova.com](http://www.phenova.com)

#### 1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924  
ChemTel Assistance (International) +1 813-248-0585

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carc. 1B H350  
Aquatic Acute 1 H400  
Aquatic Chronic 3 H412

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc. Cat. 2; R45  
N; R50/53  
Full text of R-phrases: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

GHS09

Signal word (CLP) : Danger  
Hazardous ingredients : benzo[e]pyrene; hexachlorobenzene  
Hazard statements (CLP) : H350 - May cause cancer  
H410 - Very toxic to aquatic life with long lasting effects  
Precautionary statements (CLP) : P273 - Avoid release to the environment  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P308+P313 - IF exposed or concerned: Get medical advice/attention  
P391 - Collect spillage

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P403+P235 - Store in a well-ventilated place. Keep cool

No labeling applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Methylene Chloride (Component)	(CAS No) 75-09-2 (EC no) 200-838-9 (EC index no) 602-004-00-3	99.2	Carc. 2, H351
benzo[e]pyrene (Component)	(CAS No) 192-97-2 (EC no) 205-892-7 (EC index no) 601-049-00-6	0.1	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
diphenyl (Component)	(CAS No) 92-52-4 (EC no) 202-163-5 (EC index no) 601-042-00-8	0.1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
hexachlorobenzene (Component)	(CAS No) 118-74-1 (EC no) 204-273-9 (EC index no) 602-065-00-6	0.1	Carc. 1B, H350 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2,6-dimethylnaphthalene (Component)	(CAS No) 581-42-0 (EC no) 209-464-0	0.1	Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1-Methylphenanthrene (Component)	(CAS No) 832-69-9	0.1	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Chronic 1, H410 Aquatic Chronic 2, H411

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

No additional information available

### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up in absorbent material. Collect spillage.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene measures : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.

Incompatible materials : Direct sunlight.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Colorless.

Odor : characteristic.

pH : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Relative density	: No data available
Solubility	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>diphenyl (92-52-4)</b>	
LD50 oral rat	3280 mg/kg (Rat)
LD50 dermal rabbit	2500 mg/kg (Rabbit)
ATE CLP (oral)	3280.000 mg/kg body weight
ATE CLP (dermal)	2500.000 mg/kg body weight

<b>2,6-dimethylnaphthalene (581-42-0)</b>	
LD50 oral rat	> 13430 mg/kg (Rat)
LD50 dermal rabbit	> 3000 mg/kg (Rabbit)

<b>hexachlorobenzene (118-74-1)</b>	
LD50 oral rat	10000 mg/kg (Rat)
ATE CLP (oral)	10000.000 mg/kg body weight

<b>1-Methylphenanthrene (832-69-9)</b>	
ATE CLP (oral)	500.000 mg/kg body weight

<b>Methylene Chloride (75-09-2)</b>	
LD50 oral rat	> 2000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study)

Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: May cause cancer. May cause cancer
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met

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Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life. Harmful to aquatic life with long lasting effects.

<b>benzo[e]pyrene (192-97-2)</b>	
EC50 Daphnia 1	0.0007 mg/l (LC50; 15 h)
<b>diphenyl (92-52-4)</b>	
LC50 fish 1	1.5 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 2	0.36 mg/l (LC50; 48 h)
Threshold limit algae 2	1.28 mg/l (EC50; 3 h)
<b>2,6-dimethylnaphthalene (581-42-0)</b>	
EC50 Daphnia 1	0.193 mg/l (EC50; 48 h)
<b>hexachlorobenzene (118-74-1)</b>	
LC50 fish 2	2.30 mg/l (LC50; 96 h)
EC50 Daphnia 2	> 0.03 mg/l (EC50; 24 h)
<b>Methylene Chloride (75-09-2)</b>	
LC50 fish 1	193 mg/l (LC50; 96 h; Pimephales promelas)
EC50 Daphnia 1	168.2 mg/l (EC50; 48 h)

#### 12.2. Persistence and degradability

<b>Custom BNA Mix 1</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>benzo[e]pyrene (192-97-2)</b>	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.
ThOD	2.92 g O <sub>2</sub> /g substance
<b>diphenyl (92-52-4)</b>	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water.
Biochemical oxygen demand (BOD)	1.08 g O <sub>2</sub> /g substance
ThOD	3.01 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.36
<b>2,6-dimethylnaphthalene (581-42-0)</b>	
ThOD	3.07 g O <sub>2</sub> /g substance
<b>hexachlorobenzene (118-74-1)</b>	
Persistence and degradability	Not readily biodegradable in water. Not easily biodegradable in water in anaerobic conditions. Forming sediments in water. Non degradable in the soil. Adsorbs into the soil.
<b>Methylene Chloride (75-09-2)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.

#### 12.3. Bioaccumulative potential

<b>Custom BNA Mix 1</b>	
Bioaccumulative potential	Not established.
<b>benzo[e]pyrene (192-97-2)</b>	
BCF other aquatic organisms 1	10000 (BCF; 240 h)
Log Pow	6.30
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
<b>diphenyl (92-52-4)</b>	
BCF fish 1	437 (BCF)
BCF other aquatic organisms 1	540 (BCF; 24 h; Chlorella sp.)
Log Pow	3.16 - 4.09
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).

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<b>2,6-dimethylnaphthalene (581-42-0)</b>	
Log Pow	4.31
<b>hexachlorobenzene (118-74-1)</b>	
BCF fish 1	20000 (BCF)
BCF fish 2	30000 (BCF)
BCF other aquatic organisms 1	25000 (BCF)
BCF other aquatic organisms 2	1130 (BCF; 720 h)
Log Pow	5.73 - 6.39 (Experimental value)
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
<b>Methylene Chloride (75-09-2)</b>	
BCF fish 1	2 - 40 (BCF)
Log Pow	1.25 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>hexachlorobenzene (118-74-1)</b>	
Ecology - soil	Not toxic to bees.
<b>Methylene Chloride (75-09-2)</b>	
Surface tension	0.028 N/m (20 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 3082

UN-No.(IATA) : 3082

UN-No. (IMDG) : 3082

UN-No.(ADN) : 3082

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.

Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, (E)

### 14.3. Packing group

Class (ADR) : 9

Classification code (ADR) : M6

Class (IATA) : 9

Class (IMDG) : 9

Class (ADN) : 9

Classification code (ADN) : M6

Hazard labels (ADR) : 9



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Hazard labels (IATA) : 9



Hazard labels (IMDG) : 9



Hazard labels (ADN) : 9



### 14.4. Packing group

Packing group (ADR) : III  
Packing group (IATA) : III  
Packing group (IMDG) : III  
Packing group (ADN) : III

### 14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90  
Classification code (ADR) : M6  
Orange plates :



Special provision (ADR) : 274, 335, 601, 375  
Transport category (ADR) : 3  
Tunnel restriction code (ADR) : E  
Limited quantities (ADR) : 5l  
Excepted quantities (ADR) : E1

#### 14.6.2. Transport by sea

Special provision (IMDG) : 274, 335, 969  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
Packing provisions (IMDG) : PP1  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP2, TP29  
EmS-No. (Fire) : F-A  
EmS-No. (Spillage) : S-F  
Stowage category (IMDG) : A

#### 14.6.3. Air transport

CAO packing instructions (IATA) : 964  
CAO max net quantity (IATA) : 450L  
PCA packing instructions (IATA) : 964  
PCA Limited quantities (IATA) : Y964

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PCA limited quantity max net quantity (IATA)	: 30kgG
PCA max net quantity (IATA)	: 450L
PCA Excepted quantities (IATA)	: E1
Special provision (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

### 14.6.4. Inland waterway transport

Special provision (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0
Carriage prohibited (ADN)	: No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions  
Contains no REACH candidate substance  
Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.

PHV SDS EU

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