

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Custom BNA Mix 2  
Product code : AL0-130058  
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]

Flam. Liq. 2 H225  
Acute Tox. 4 (Oral) H302  
Acute Tox. 4 (Dermal) H312  
Acute Tox. 4 (Inhalation) H332  
Carc. 1B H350  
Aquatic Chronic 3 H412

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

Carc.Cat.2; R45  
F; R11  
Xn; R20/21/22  
R19

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) :



GHS02

GHS07

GHS08

Signal word (CLP) : Danger

Hazardous ingredients : bis(2-chloroethyl) ether; N-Nitrosodimethylamine; quinoline

Hazard statements (CLP) : H225 - Highly flammable liquid and vapor

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	H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled H350 - May cause cancer H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking P233 - Keep container tightly closed P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area P273 - Avoid release to the environment P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P308+P313 - IF exposed or concerned: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P403+P235 - Store in a well-ventilated place. Keep cool
EUH phrases	: EUH019 - May form explosive peroxides
No labeling applicable	

### 2.3. Other hazards

Contains PBT/vPvB substances >= 0.1% assessed in accordance with REACH, Annex XIII

## 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	98.9	Carc. 2, H351
benzyl butyl phthalate (Component) substance listed as REACH Candidate (Benzyl butyl phthalate (BBP)) substance listed in REACH Annex XIV (Benzyl butyl phthalate (BBP))	(CAS No) 85-68-7 (EC no) 201-622-7 (EC index no) 607-430-00-3	0.1	Repr. 1B, H360D Aquatic Acute 1, H400 Aquatic Chronic 1, H410
bis(2-chloroethyl) ether (Component)	(CAS No) 111-44-4 (EC no) 203-870-1 (EC index no) 603-029-00-2	0.1	Flam. Liq. 3, H226 Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 Carc. 2, H351
dibenzofuran (Component)	(CAS No) 132-64-9 (EC no) 205-071-3	0.1	Aquatic Chronic 2, H411
dibutyl phthalate (Component) substance listed as REACH Candidate (Dibutyl phthalate (DBP)) substance listed in REACH Annex XIV (Dibutyl phthalate (DBP))	(CAS No) 84-74-2 (EC no) 201-557-4 (EC index no) 607-318-00-4	0.1	Repr. 1B, H360D Aquatic Acute 1, H400 Aquatic Chronic 2, H411
di-n-octyl phthalate (Component)	(CAS No) 117-84-0 (EC no) 204-214-7	0.1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Bis(2-ethylhexyl) phthalate (Component) substance listed as REACH Candidate (Bis (2-ethyl(hexyl)phthalate) (DEHP)) substance listed in REACH Annex XIV (Bis(2-ethylhexyl) phthalate (DEHP))	(CAS No) 117-81-7 (EC no) 204-211-0 (EC index no) 607-317-00-9	0.1	Repr. 1B, H360 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
N-Nitrosodimethylamine (Component)	(CAS No) 62-75-9 (EC no) 200-549-8 (EC index no) 612-077-00-3	0.1	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Inhalation), H330 Carc. 1B, H350 STOT RE 1, H372 Aquatic Chronic 2, H411
quinoline (Component)	(CAS No) 91-22-5 (EC no) 202-051-6 (EC index no) 613-281-00-5	0.1	Carc. 1B, H350 Muta. 2, H341 Acute Tox. 3 (Oral), H301 Acute Tox. 4 (Dermal), H312 Eye Irrit. 2, H319 Skin Irrit. 2, H315 Aquatic Chronic 2, H411
1,4-dioxane (Component)	(CAS No) 123-91-1 (EC no) 204-661-8 (EC index no) 603-024-00-5	0.1	Flam. Liq. 2, H225 Carc. 2, H351 Eye Irrit. 2, H319 STOT SE 3, H335
Name	Product identifier	Specific concentration limits	
N-Nitrosodimethylamine (Component)	(CAS No) 62-75-9 (EC no) 200-549-8 (EC index no) 612-077-00-3	(C >= 0.001) Carc. 1B, H350	

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### 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 : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
- 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. Call a POISON CENTER or doctor/physician if you feel unwell.

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

- Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
- Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

#### 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

- Fire hazard : Highly flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form explosive peroxides.

#### 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. DO NOT fight fire when fire reaches explosives. Evacuate area.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### 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

- Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.
- 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. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition - No smoking.
- Hygiene measures : Do not eat, drink or smoke when using this product. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

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

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions	: Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.
Incompatible products	: Oxidizing agent.
Incompatible materials	: Direct sunlight. Heat sources.

### 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
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor
Relative density	: No data available
Solubility	: No data available
Explosive properties	: May form explosive peroxides.
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

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

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### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks. Overheating.

### 10.5. Incompatible materials

Oxidizing agent.

### 10.6. Hazardous decomposition products

May release flammable gases. May form explosive peroxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation: Harmful if inhaled.

Custom BNA Mix 2	
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
benzyl butyl phthalate (85-68-7)	
LD50 oral rat	2330 mg/kg (Rat)
LD50 dermal rat	6700 mg/kg (Rat)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 6.7 mg/l/4h (Rat)
ATE CLP (oral)	2330.000 mg/kg body weight
ATE CLP (dermal)	6700.000 mg/kg body weight
bis(2-chloroethyl) ether (111-44-4)	
LC50 inhalation rat (mg/l)	0.33 mg/l/4h (Rat)
ATE CLP (oral)	5.000 mg/kg body weight
ATE CLP (dermal)	5.000 mg/kg body weight
ATE CLP (gases)	100.000 ppmV/4h
ATE CLP (vapors)	0.330 mg/l/4h
ATE CLP (dust, mist)	0.330 mg/l/4h
dibutyl phthalate (84-74-2)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 20900 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 15 mg/l/4h (Rat)
di-n-octyl phthalate (117-84-0)	
LD50 oral rat	47000 mg/kg (Rat)
ATE CLP (oral)	47000.000 mg/kg body weight
1,4-dioxane (123-91-1)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	7600 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	51 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	14250 ppm/4h (Rat)
Bis(2-ethylhexyl) phthalate (117-81-7)	
LD50 oral rat	30000 mg/kg (Rat)
LD50 dermal rabbit	25000 mg/kg (Rabbit; Experimental value; 19800 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	> 10.6 mg/l/4h (Rat)
ATE CLP (oral)	30000.000 mg/kg body weight
ATE CLP (dermal)	25000.000 mg/kg body weight
N-Nitrosodimethylamine (62-75-9)	
LD50 oral rat	37 mg/kg (Rat)
LC50 inhalation rat (mg/l)	0.24 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	78 ppm/4h (Rat)
ATE CLP (oral)	37.000 mg/kg body weight
ATE CLP (gases)	78.000 ppmV/4h
ATE CLP (vapors)	0.240 mg/l/4h
ATE CLP (dust, mist)	0.240 mg/l/4h
quinoline (91-22-5)	
LD50 oral rat	262 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value; 331 mg/kg bodyweight; Rat; Literature study)

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<b>quinoline (91-22-5)</b>	
LD50 dermal rat	1377 mg/kg (Rat; Experimental value; Equivalent or similar to OECD 402)
LD50 dermal rabbit	540 mg/kg (Rabbit; Literature study)
<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
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	: Harmful if swallowed. Harmful in contact with skin.

### SECTION 12: Ecological information

#### 12.1. Toxicity

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

<b>benzyl butyl phthalate (85-68-7)</b>	
LC50 fish 2	0.82 mg/l (LC50; 96 h)
EC50 Daphnia 2	0.97 mg/l (EC50; 48 h)
<b>bis(2-chloroethyl) ether (111-44-4)</b>	
EC50 Daphnia 1	238 mg/l (EC50; 48 h)
LC50 fish 2	600 mg/l (LC50; 96 h; Lepomis macrochirus)
<b>dibenzofuran (132-64-9)</b>	
LC50 fish 1	1.78 - 1.85 mg/l (LC50; 96 h)
EC50 Daphnia 1	1.7 mg/l (LC50; 48 h)
<b>dibutyl phthalate (84-74-2)</b>	
LC50 fish 1	0.85 ppm (LC50; 96 h)
EC50 other aquatic organisms 1	9 mg/l (48 h; Scenedesmus subspicatus; Growth rate)
EC50 Daphnia 2	3.1 - 3.8 mg/l (EC50; 48 h)
<b>di-n-octyl phthalate (117-84-0)</b>	
LC50 fish 2	0.69 mg/l (LC50; 168 h)
<b>1,4-dioxane (123-91-1)</b>	
EC50 Daphnia 1	8450 mg/l (EC50; 24 h)
LC50 fish 2	13000 mg/l (LC50; 96 h)
Threshold limit algae 2	5600 mg/l (EC0; 192 h)
<b>Bis(2-ethylhexyl) phthalate (117-81-7)</b>	
Threshold limit algae 1	> 130 mg/l (EC50; 72 h; Algae)
<b>quinoline (91-22-5)</b>	
LC50 fish 2	7.42 mg/l (LC50; 96 h)
EC50 Daphnia 2	28.5 mg/l (EC50; 48 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)

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### 12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
benzyl butyl phthalate (85-68-7)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradability in soil: no data available. Adsorbs into the soil.
bis(2-chloroethyl) ether (111-44-4)	
Persistence and degradability	Not readily biodegradable in water.
dibenzofuran (132-64-9)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water.
dibutyl phthalate (84-74-2)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.43 g O <sub>2</sub> /g substance
ThOD	2.24 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.19
di-n-octyl phthalate (117-84-0)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water.
1,4-dioxane (123-91-1)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Photooxidation in the air.
Biochemical oxygen demand (BOD)	0 g O <sub>2</sub> /g substance
ThOD	1.8 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0
Bis(2-ethylhexyl) phthalate (117-81-7)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photolysis in the air.
N-Nitrosodimethylamine (62-75-9)	
Persistence and degradability	Not readily biodegradable in water. Photolysis in water. Photolysis in the air.
quinoline (91-22-5)	
Persistence and degradability	Not readily biodegradable in water. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.71 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.31 g O <sub>2</sub> /g substance
ThOD	2.5 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.68
Methylene Chloride (75-09-2)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.

### 12.3. Bioaccumulative potential

Custom BNA Mix 2	
Bioaccumulative potential	Not established.
benzyl butyl phthalate (85-68-7)	
BCF fish 1	188 (BCF; 408 h)
BCF fish 2	663 (BCF; 504 h)
BCF other aquatic organisms 1	26 - 270 (BCF)
Log Pow	3.57 - 5.8
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
bis(2-chloroethyl) ether (111-44-4)	
BCF fish 1	< 10 (BCF)
BCF fish 2	10.96 (BCF; 336 h)
Log Pow	1.12 - 1.58
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
dibenzofuran (132-64-9)	
BCF fish 1	2420 (BCF)
BCF fish 2	524 - 2420 (BCF)
Log Pow	4.12 - 5.16
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
dibutyl phthalate (84-74-2)	
BCF fish 1	12 (BCF)
BCF fish 2	117 (BCF)

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<b>dibutyl phthalate (84-74-2)</b>	
BCF other aquatic organisms 1	22 - 42 (BCF)
BCF other aquatic organisms 2	5000 (BCF; 72 h)
Log Pow	3.23 - 5.6
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
<b>di-n-octyl phthalate (117-84-0)</b>	
BCF fish 1	116 (BCF)
BCF fish 2	9400 (BCF; 792 h; <i>Gambusia affinis</i> )
BCF other aquatic organisms 1	2600 (BCF; 792 h)
BCF other aquatic organisms 2	28500 (BCF; 792 h)
Log Pow	4.6 - 9.2
Bioaccumulative potential	High potential for bioaccumulation (BCF > 5000).
<b>1,4-dioxane (123-91-1)</b>	
BCF fish 1	0.2 - 0.7 (BCF)
Log Pow	-0.27 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<b>Bis(2-ethylhexyl) phthalate (117-81-7)</b>	
BCF fish 2	155 - 886 (BCF; 56 days; <i>Pimephales promelas</i> )
Log Pow	7.68 (Experimental value; Other)
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
<b>N-Nitrosodimethylamine (62-75-9)</b>	
Log Pow	-0.77 - -0.57
Bioaccumulative potential	Bioaccumulation: not applicable.
<b>quinoline (91-22-5)</b>	
BCF fish 1	0.1 - 3.8 (BCF)
BCF fish 2	8 (BCF; 144 h)
Log Pow	1.88 - 2.06
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
<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).
<b>12.4. Mobility in soil</b>	
<b>bis(2-chloroethyl) ether (111-44-4)</b>	
Surface tension	0.038 N/m (19 °C)
<b>dibutyl phthalate (84-74-2)</b>	
Surface tension	0.034 N/m (20 °C)
<b>1,4-dioxane (123-91-1)</b>	
Surface tension	0.037 N/m (20 °C)
<b>Bis(2-ethylhexyl) phthalate (117-81-7)</b>	
Surface tension	0.032 N/m (20 °C)
<b>quinoline (91-22-5)</b>	
Surface tension	0.045 N/m (20 °C)
Log Koc	Koc, OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method; 33.6-161-9; Experimental value; log Koc; OECD 106: Adsorption/Desorption Using a Batch Equilibrium Method; 1.53-2.21; Experimental value
<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.
<b>12.5. Results of PBT and vPvB assessment</b>	
<b>Component</b>	
benzyl butyl phthalate (85-68-7)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII This substance/mixture does not meet the vPvB criteria of REACH, annex XIII
dibutyl phthalate (84-74-2)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII This substance/mixture does not meet the vPvB criteria of REACH, annex XIII
(117-81-7)	This substance/mixture meets the PBT criteria of REACH, annex XIII This substance/mixture meets the vPvB criteria of REACH, annex XIII



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### 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.

Additional information : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.

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) : 1993

UN-No.(IATA) : 1993

UN-No. (IMDG) : 1993

UN-No.(ADN) : 1993

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, N.O.S.

Proper Shipping Name (IATA) : Flammable liquid, n.o.s.

Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S.

Proper Shipping Name (ADN) : FLAMMABLE LIQUID, N.O.S.

Transport document description (ADR) : UN 1993 FLAMMABLE LIQUID, N.O.S., 3, II, (D/E)

### 14.3. Packing group

Class (ADR) : 3

Classification code (ADR) : F1

Class (IATA) : 3

Class (IMDG) : 3

Class (ADN) : 3

Classification code (ADN) : F1

Hazard labels (ADR) : 3



Hazard labels (IATA) : 3



Hazard labels (IMDG) : 3



Hazard labels (ADN) : 3



### 14.4. Packing group

Packing group (ADR) : II

Packing group (IATA) : II

Packing group (IMDG) : II

Packing group (ADN) : II

### 14.5. Environmental hazards

Other information : No supplementary information available.

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### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 33  
Classification code (ADR) : F1  
Orange plates :



Special provision (ADR) : 274, 601, 640D  
Transport category (ADR) : 2  
Tunnel restriction code (ADR) : D/E  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2

#### 14.6.2. Transport by sea

Special provision (IMDG) : 274  
Limited quantities (IMDG) : 1 L  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P001  
IBC packing instructions (IMDG) : IBC02  
Tank instructions (IMDG) : T7  
Tank special provisions (IMDG) : TP1, TP8, TP28  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-E  
Stowage category (IMDG) : B

#### 14.6.3. Air transport

CAO packing instructions (IATA) : 364  
CAO max net quantity (IATA) : 60L  
PCA packing instructions (IATA) : 353  
PCA Limited quantities (IATA) : Y341  
PCA limited quantity max net quantity (IATA) : 1L  
PCA max net quantity (IATA) : 5L  
PCA Excepted quantities (IATA) : E2  
Special provision (IATA) : A3  
ERG code (IATA) : 3H

#### 14.6.4. Inland waterway transport

Special provision (ADN) : 274, 601, 640D  
Limited quantities (ADN) : 1 L  
Excepted quantities (ADN) : E2  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 1  
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 substance on the candidate list in concentration  $\geq 0.1\%$  or with a lower specific limit: Benzyl butyl phthalate (BBP) (EC 201-622-7, CAS 85-68-7), Dibutyl phthalate (DBP) (EC 201-557-4, CAS 84-74-2), Bis (2-ethyl(hexyl)phthalate) (DEHP) (EC 204-211-0, CAS 117-81-7)

Contains no REACH Annex XIV substances  $\geq$  to the Annex XIV limit value

#### 15.1.2. National regulations

No additional information available

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### 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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