Appendix IX Mix 1

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 08/04/2014 Revision date: 10/04/2015 : Version: 1.1

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

1.1. Product identifier

Product form : Mixture

Product name : Appendix IX Mix 1

Product code : AL0-101235

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

Use of the substance/mixture : Certified reference material for laboratory 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 - 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. 3	H226
Carc. 1A	H350
Aquatic Chronic 3	H412

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

Carc.Cat.1; R45
R10
R52/53

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) :

GHS02 GHS08

Signal word (CLP) : Danger

Hazardous ingredients : Methylene Chloride, 4-aminobiphenyl, 4-dimethylaminoazobenzene, 3,3'-Dimethylbenzidine, 2-naphthylamine, N-nitrosodibutylamine, N-Nitrosodiethylamine, N-Nitroso-N-methylethylamine, N-Nitrosomorpholine, N-Nitrosopiperdine, N-Nitrosopyrrolidine, o-toluidine

Hazard statements (CLP) : H226 - Flammable liquid and vapor
H350 - May cause cancer

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) : P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P233 - Keep container tightly closed
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
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up

EUH phrases : EUH208 - Contains p-phenylenediamine(106-50-3). May produce an allergic reaction

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	96.6	Carc. 2, H351
4-aminobiphenyl (Component) substance listed as REACH Candidate (Biphenyl-4-ylamine)	(CAS No) 92-67-1 (EC no) 202-177-1 (EC index no) 612-072-00-6	0.2	Acute Tox. 4 (Oral), H302 Carc. 1A, H350
4-dimethylaminoazobenzene (Component)	(CAS No) 60-11-7 (EC no) 200-455-7	0.2	Acute Tox. 3 (Oral), H301 Carc. 1B, H350
3,3'-Dimethylbenzidine (Component)	(CAS No) 119-93-7 (EC no) 204-358-0 (EC index no) 612-041-00-7	0.2	Acute Tox. 4 (Oral), H302 Carc. 1B, H350 Aquatic Chronic 2, H411
1-naphthylamine (Component)	(CAS No) 134-32-7 (EC no) 205-138-7 (EC index no) 612-020-00-2	0.2	Acute Tox. 4 (Oral), H302 Aquatic Chronic 2, H411
2-naphthylamine (Component)	(CAS No) 91-59-8 (EC no) 202-080-4 (EC index no) 612-022-00-3	0.2	Acute Tox. 4 (Oral), H302 Carc. 1A, H350 Aquatic Chronic 2, H411
5-nitro-o-toluidine (Component)	(CAS No) 99-55-8 (EC no) 202-765-8 (EC index no) 612-210-00-5	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Carc. 2, H351 Aquatic Chronic 3, H412
N-nitrosodibutylamine (Component)	(CAS No) 924-16-3 (EC no) 213-101-1	0.2	Acute Tox. 4 (Oral), H302 Carc. 1B, H350
N-Nitrosodiethylamine (Component)	(CAS No) 55-18-5 (EC no) 200-226-1	0.2	Acute Tox. 3 (Oral), H301 Carc. 1B, H350
N-Nitroso-N-methylethylamine (Component)	(CAS No) 10595-95-6	0.2	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Carc. 1B, H350
N-Nitrosomorpholine (Component)	(CAS No) 59-89-2	0.2	Acute Tox. 3 (Oral), H301 Carc. 1B, H350
N-Nitrosopiperdine (Component)	(CAS No) 100-75-4 (EC no) 202-886-6	0.2	Acute Tox. 3 (Oral), H301 Carc. 1B, H350
N-Nitrosopyrrolidine (Component)	(CAS No) 930-55-2 (EC no) 213-218-8	0.2	Acute Tox. 4 (Oral), H302 Carc. 1B, H350
p-phenylenediamine (Component)	(CAS No) 106-50-3 (EC no) 203-404-7 (EC index no) 612-028-00-6	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
2-Picoline (Component)	(CAS No) 109-06-8 (EC no) 203-643-7 (EC index no) 613-036-00-2	0.2	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319 STOT SE 3, H335
o-toluidine (Component) substance listed as REACH Candidate	(CAS No) 95-53-4 (EC no) 202-429-0 (EC index no) 612-091-00-X	0.2	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation), H331 Eye Irrit. 2, H319 Carc. 1B, H350 Aquatic Acute 1, H400

Name	Product identifier	Specific concentration limits
2-naphthylamine (Component)	(CAS No) 91-59-8 (EC no) 202-080-4 (EC index no) 612-022-00-3	(C >= 0.01) Carc. 1A, H350

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/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

Symptoms/injuries after inhalation : May cause cancer by inhalation.

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 : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

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.

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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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.

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. Take precautionary measures against static discharge. Use only non-sparking tools. 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

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.

Storage conditions	:	Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Sources of ignition. 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)	:	Flammable liquid and vapor
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. Flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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

4-aminobiphenyl (92-67-1)	
LD50 oral rat	500 mg/kg (Rat)
ATE CLP (oral)	500.000 mg/kg body weight

4-dimethylaminoazobenzene (60-11-7)	
LD50 oral rat	200 mg/kg (Rat)
ATE CLP (oral)	200.000 mg/kg body weight

3,3'-Dimethylbenzidine (119-93-7)	
LD50 oral rat	404 mg/kg (Rat)
ATE CLP (oral)	404.000 mg/kg body weight

1-naphthylamine (134-32-7)	
LD50 oral rat	680 mg/kg (Rat)
ATE CLP (oral)	680.000 mg/kg body weight

2-naphthylamine (91-59-8)	
LD50 oral rat	727 mg/kg (Rat)
ATE CLP (oral)	727.000 mg/kg body weight

5-nitro-o-toluidine (99-55-8)	
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h

N-nitrosodibutylamine (924-16-3)	
LD50 oral rat	1200 mg/kg (Rat)
ATE CLP (oral)	1200.000 mg/kg body weight

N-Nitrosodiethylamine (55-18-5)	
LD50 oral rat	220 mg/kg (Rat)
ATE CLP (oral)	220.000 mg/kg body weight

N-Nitroso-N-methylethylamine (10595-95-6)	
LD50 oral rat	90 mg/kg (Rat)
ATE CLP (oral)	90.000 mg/kg body weight

N-Nitrosomorpholine (59-89-2)	
LD50 oral rat	282 mg/kg (Rat)
ATE CLP (oral)	282.000 mg/kg body weight

N-Nitrosopiperdine (100-75-4)	
LD50 oral rat	200 mg/kg (Rat)
ATE CLP (oral)	200.000 mg/kg body weight

N-Nitrosopyrrolidine (930-55-2)	
LD50 oral rat	900 mg/kg (Rat)
ATE CLP (oral)	900.000 mg/kg body weight

p-phenylenediamine (106-50-3)	
LD50 oral rat	80 mg/kg (Rat)
LC50 inhalation rat (mg/l)	0.92 mg/l/4h (Rat)
ATE CLP (oral)	80.000 mg/kg body weight
ATE CLP (dermal)	300.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h

p-phenylenediamine (106-50-3)	
ATE CLP (vapors)	0.920 mg/l/4h
ATE CLP (dust, mist)	0.920 mg/l/4h

2-Picoline (109-06-8)	
LD50 oral rat	600 mg/kg (Rat)
LD50 dermal rabbit	410 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	13 mg/l/4h (Rat)
ATE CLP (oral)	600.000 mg/kg body weight
ATE CLP (dermal)	410.000 mg/kg body weight
ATE CLP (gases)	4500.000 ppmV/4h
ATE CLP (vapors)	13.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h

o-toluidine (95-53-4)	
LD50 oral rat	670 mg/kg (Rat)
LD50 dermal rabbit	3250 mg/kg (Rabbit)
ATE CLP (oral)	100.000 mg/kg body weight
ATE CLP (dermal)	3250.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h

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 by inhalation
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 : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

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

Methylene Chloride (75-09-2)	
LC50 fish 1	193 mg/l (96 h; Pimephales promelas; Flow-through system)
EC50 Daphnia 1	168.2 mg/l (48 h; Daphnia magna)
LC50 fish 2	220 mg/l (96 h; Lepomis macrochirus; Flow-through system)
Threshold limit algae 1	1450 mg/l (192 h; Scenedesmus quadricauda; Cell numbers)
Threshold limit algae 2	550 mg/l (192 h; Microcystis aeruginosa)

4-aminobiphenyl (92-67-1)	
LC50 fish 1	4.5 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 1	5.4 mg/l (96 h; Daphnia magna; QSAR)

3,3'-Dimethylbenzidine (119-93-7)	
LC50 fish 1	56 mg/l (48 h; Oryzias latipes)
EC50 Daphnia 1	3.2 mg/l (24 h; Daphnia sp.; Locomotor effect)

3,3'-Dimethylbenzidine (119-93-7)	
Threshold limit algae 1	3.7 mg/l (72 h; Scenedesmus subspicatus)

1-naphthylamine (134-32-7)	
LC50 fish 1	1 - 10 ppm (96 h; Pisces)
LC50 other aquatic organisms 1	1 - 10 ppm (96 h; Lethal)
LC50 fish 2	7 mg/l (48 h; Oryzias latipes)
TLM fish 1	6 mg/l (96 h; Rutilus rutilus)
TLM fish 2	1 - 10,Pisces
TLM other aquatic organisms 1	1 - 10,96 h
Threshold limit other aquatic organisms 1	1 - 10,96 h; Lethal
Threshold limit algae 1	1.7 mg/l (4 h; Selenastrum capricornutum)

5-nitro-o-toluidine (99-55-8)	
LC50 fish 1	102 mg/l (336 h; Pisces)

N-Nitrosodiethylamine (55-18-5)	
LC50 fish 1	775 mg/l (96 h; Pimephales promelas)

p-phenylenediamine (106-50-3)	
LC50 fish 1	0.1 - 1 mg/l (96 h; Leuciscus idus)
EC50 Daphnia 1	0.28 mg/l (48 h; Daphnia magna)
EC50 other aquatic organisms 1	74 mg/l (60 h; Protozoa)
LC50 fish 2	0.028 mg/l (96 h; Pimephales promelas)
TLM fish 1	5.75 mg/l (48 h; Carassius auratus)
Threshold limit algae 1	0.28 mg/l (96 h; Selenastrum capricornutum)

2-Picoline (109-06-8)	
LC50 fish 1	897 mg/l (96 h; Pisces)
EC50 Daphnia 1	> 100 mg/l (48 h; Crustacea)
EC50 other aquatic organisms 1	1002.5 mg/l (60 h; Protozoa; Growth)

o-toluidine (95-53-4)	
LC50 fish 1	68 - 100 mg/l (96 h; Leuciscus idus)
EC50 Daphnia 1	0.52 mg/l (48 h; Daphnia magna)
LC50 fish 2	78.5 mg/l (48 h; Cyprinus carpio)
EC50 Daphnia 2	9 - 50 mg/l (24 h; Daphnia magna)
TLM fish 1	100 mg/l (Pisces)
Threshold limit algae 1	6.3 mg/l (168 h; Scenedesmus quadricauda; Biomass)
Threshold limit algae 2	0.31 mg/l (192 h; Microcystis aeruginosa; Toxicity test)

12.2. Persistence and degradability

Appendix IX Mix 1	
Persistence and degradability	May cause long-term adverse effects in the environment.

Methylene Chloride (75-09-2)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil.

4-aminobiphenyl (92-67-1)	
Persistence and degradability	Biodegradability in water: no data available.

4-dimethylaminoazobenzene (60-11-7)	
Persistence and degradability	Biodegradability in water: no data available.

3,3'-Dimethylbenzidine (119-93-7)	
Persistence and degradability	Not readily biodegradable in water.

1-naphthylamine (134-32-7)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.89 g O□ /g substance
Chemical oxygen demand (COD)	2.41 g O□ /g substance
ThOD	2.57 g O□ /g substance
BOD (% of ThOD)	0.35 % ThOD

2-naphthylamine (91-59-8)	
Persistence and degradability	Not readily biodegradable in water.
ThOD	2.57 g O□ /g substance
BOD (% of ThOD)	0.57 % ThOD

5-nitro-o-toluidine (99-55-8)	
Persistence and degradability	Photolysis in water. Adsorbs into the soil.

N-nitrosodibutylamine (924-16-3)	
Persistence and degradability	Biodegradability in water: no data available.

N-Nitrosodiethylamine (55-18-5)	
Persistence and degradability	Not readily biodegradable in water.

N-Nitroso-N-methylethylamine (10595-95-6)	
Persistence and degradability	Biodegradability in water: no data available.

N-Nitrosomorpholine (59-89-2)	
Persistence and degradability	Biodegradability in water: no data available.

N-Nitrosopiperdine (100-75-4)	
Persistence and degradability	Biodegradability in water: no data available.

N-Nitrosopyrrolidine (930-55-2)	
Persistence and degradability	Biodegradability in water: no data available.

p-phenylenediamine (106-50-3)	
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Photodegradation in the air.
Chemical oxygen demand (COD)	1.96 g O□ /g substance
BOD (% of ThOD)	(5 day(s)) 0

2-Picoline (109-06-8)	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.75 g O□ /g substance

o-toluidine (95-53-4)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Photolysis in the air.
Biochemical oxygen demand (BOD)	1.43 g O□ /g substance
ThOD	2.54 g O□ /g substance
BOD (% of ThOD)	0.56 % ThOD

12.3. Bioaccumulative potential

Appendix IX Mix 1	
Bioaccumulative potential	Not established.

Methylene Chloride (75-09-2)	
BCF fish 1	2 - 40 (Cyprinus carpio; Test duration: 6 weeks)
Log Pow	1.25 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

4-aminobiphenyl (92-67-1)	
Log Pow	3.09 (Calculated)
Bioaccumulative potential	No bioaccumulation data available.

4-dimethylaminoazobenzene (60-11-7)	
Log Pow	4.58
Bioaccumulative potential	No bioaccumulation data available.

3,3'-Dimethylbenzidine (119-93-7)	
BCF fish 1	4.8 - 83 (Cyprinus carpio; Test duration: 8 weeks)
Log Pow	2.45 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1-naphthylamine (134-32-7)	
BCF fish 1	9 - 54 (Cyprinus carpio; Test duration: 8 weeks)
Log Pow	2.09 - 2.25
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

2-naphthylamine (91-59-8)	
BCF fish 1	32 (Pisces)
Log Pow	2.08 - 2.4
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

5-nitro-o-toluidine (99-55-8)	
BCF fish 1	3.16 (672 h; Poecilia latipinna; QSAR)
Log Pow	1.96 (Estimated value)
Bioaccumulative potential	Bioaccumable.

N-nitrosodibutylamine (924-16-3)	
Bioaccumulative potential	No bioaccumulation data available.

N-Nitrosodiethylamine (55-18-5)	
BCF other aquatic organisms 1	1 (Estimated value)
Log Pow	0.48
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

N-Nitroso-N-methylethylamine (10595-95-6)	
Bioaccumulative potential	No bioaccumulation data available.

N-Nitrosomorpholine (59-89-2)	
Log Pow	-0.44
Bioaccumulative potential	Bioaccumulation: not applicable.

N-Nitrosopiperdine (100-75-4)	
Bioaccumulative potential	No bioaccumulation data available.

N-Nitrosopyrrolidine (930-55-2)	
Bioaccumulative potential	No bioaccumulation data available.

p-phenylenediamine (106-50-3)	
BCF fish 1	0.38 (Pisces)
Log Pow	-0.25
Bioaccumulative potential	Bioaccumulation: not applicable.

2-Picoline (109-06-8)	
Log Pow	1.1
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

o-toluidine (95-53-4)	
BCF fish 1	2.2 (48 h; Oryzias latipes)
BCF other aquatic organisms 1	5.9 (Estimated value)
Log Pow	1.29 - 1.4
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Methylene Chloride (75-09-2)	
Surface tension	0.028 N/m (20 °C)
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

o-toluidine (95-53-4)	
Surface tension	0.043 N/m

12.5. Results of PBT and vPvB assessment

Component	
(92-67-1)	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
(95-53-4)	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

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.

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) : 2810

UN-No.(IATA) : 2810

14.2. UN proper shipping name

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

Proper Shipping Name (IATA) : TOXIC LIQUID, ORGANIC, N.O.S.

Proper Shipping Name (IMDG) : TOXIC LIQUID, ORGANIC, N.O.S.
Proper Shipping Name (ADN) : TOXIC LIQUID, ORGANIC, N.O.S.
Transport document description (ADR) : UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (dichloromethane(75-09-2)), 6.1, III, (D/E)

14.3. Packing group

Class (ADR) : 6.1
Classification code (ADR) : T1
Class (IATA) : 6.1
Class (IMDG) : 6.1
Class (ADN) : 6.1
Hazard labels (ADR) : 6.1

Hazard labels (IATA) : 6.1

14.4. Packing group

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

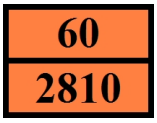
14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 60
Classification code (ADR) : T1
Orange plates :



Special provision (ADR) : 274, 614
Transport category (ADR) : 2
Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 100ml
Excepted quantities (ADR) : E4

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

CAO packing instructions (IATA) : 663
CAO max net quantity (IATA) : 220L
PCA packing instructions (IATA) : 655
PCA Limited quantities (IATA) : Y642
PCA limited quantity max net quantity (IATA) : 2L
PCA max net quantity (IATA) : 60L
PCA Excepted quantities (IATA) : E1
Special provision (IATA) : A137
ERG code (IATA) : 6L

14.6.4. Inland waterway transport

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 ≥ 0.1% or with a lower specific limit: Biphenyl-4-ylamine (EC 202-177-1, CAS 92-67-1), o-Toluidine (EC 202-429-0, CAS 95-53-4)

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