



2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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ES-5598

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

1.1. Product identifier

Product form : Mixtures
Product name : 2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE
Product code : ES-5598

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

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : 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

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

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
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Repr. 2 H361fd
STOT SE 3 H336
STOT SE 2 H371
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of hazard classes and H-statements : see section 16

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

F; R11
N; R50/53
Xn; R65
Xi; R36/38
Muta.Cat.3; R68
Repr.Cat.3; R62
Repr.Cat.3; R63
R67

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Skin Irrit. 2 H315
Eye Irrit. 2A H319
Repr. 2 H361
STOT SE 3 H336

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STOT SE 2 H371
Asp. Tox. 1 H304
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

peripheral nervous system. kidneys. testis.

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

N-HEXANE UNLABELED

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility. Suspected of damaging the unborn child (if inhaled, if swallowed, in contact with skin)
H371 - May cause damage to organs (peripheral nervous system, testis, kidneys) (in contact with skin, if inhaled, if swallowed)
H410 - Very toxic 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
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P260 - Do not breathe dust, fume, gas, mist, spray, vapors
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H361 - , Suspected of damaging fertility, Suspected of damaging the unborn child (Dermal, Inhalation, oral)
H371 - May cause damage to organs (peripheral nervous system, kidneys, testis) (Dermal, Inhalation, oral)
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge

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P260 - Do not breathe dust, fume, gas, mist, spray, vapors
P261 - Avoid breathing dust, fume, gas, mist, spray, vapors
P264 - Wash hands, forearms and face thoroughly after handling
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 eye protection, face protection, protective clothing, protective gloves
P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER
P302+P352 - If on skin: Wash with plenty of water
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
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
P312 - Call a doctor, a POISON CENTER if you feel unwell
P321 - Specific treatment (see Hazardous component(s) for labeling on this label)
P331 - Do NOT induce vomiting
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO₂), dry extinguishing powder to extinguish
P391 - Collect spillage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

PBT: not yet assessed

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
N-HEXANE UNLABELED	(CAS No) 110-54-3 (EC No) 203-777-6 (EC Index No) 601-037-00-0	99.905	F; R11 N; R50/53 Xn; R65 Xi; R36/38 Muta.Cat.3; R68 Repr.Cat.3; R62 Repr.Cat.3; R63 R67
2-AMINONAPHTHALENE UNLABELED	(CAS No) 91-59-8 (Unlabeled) (EC No) 202-080-4 (EC Index No) 612-022-00-3	0.076	Xn; R22
4-AMINOBIIPHENYL UNLABELED 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	0.019	Xn; R22 Carc.Cat.1; R45 Carc.Cat.1; R49

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
N-HEXANE UNLABELED	(CAS No) 110-54-3 (EC No) 203-777-6 (EC Index No) 601-037-00-0	99.905	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361fd STOT SE 3, H336 STOT SE 2, H371 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-AMINONAPHTHALENE UNLABELED	(CAS No) 91-59-8 (Unlabeled) (EC No) 202-080-4 (EC Index No) 612-022-00-3	0.076	Acute Tox. 4 (Oral), H302 Carc. 1A, H350 Aquatic Chronic 2, H411
4-AMINOBIIPHENYL UNLABELED 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	0.019	Acute Tox. 4 (Oral), H302 Carc. 1A, H350

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Name	Product identifier	%	GHS-US classification
N-HEXANE UNLABELED	(CAS No) 110-54-3	99.905	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 STOT SE 3, H336 STOT SE 2, H371 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-AMINONAPHTHALENE UNLABELED	(CAS No) 91-59-8 (Unlabeled)	0.076	Acute Tox. 4 (Oral), H302 Carc. 1A, H350 Aquatic Chronic 2, H411
4-AMINOBIIPHENYL UNLABELED	(CAS No) 92-67-1	0.019	Acute Tox. 4 (Oral), H302 Carc. 1A, H350

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
First-aid measures after ingestion	: Immediately call a poison center or doctor/physician.

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

Symptoms/injuries	: Suspected of damaging fertility. Suspected of damaging the unborn child (in contact with skin, if inhaled, if swallowed). May cause damage to organs (kidneys, peripheral nervous system, testis) (in contact with skin, if inhaled, if swallowed).
Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.

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 : Water spray. Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

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.
Reactivity	: Highly flammable liquid and vapor. vapors may form flammable mixture with air.

5.3. Advice for firefighters

Firefighting instructions	: Fight fire with normal precautions from a reasonable distance. Wear a self contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Wear recommended personal protective equipment.
Other information	: Use water spray to cool exposed surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment as required. Avoid breathing vapors, mist, gas. Avoid dust formation. Ensure adequate air ventilation. Evacuate unnecessary personnel. Eliminate all ignition sources if safe to do so. Special attention should be given to low areas/pits where flammable vapors can accumulate.

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow to enter drains or water courses. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Clean up any spills as soon as possible, using an absorbent material to collect it. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal.

Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid all eye and skin contact and do not breathe vapor and mist. Keep away from sources of ignition - No smoking. Take precautionary measures to prevent the formation of static electricity. Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : 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. Avoid breathing dust, fume, gas, mist, spray, vapors. Use only outdoors or in a well-ventilated area.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms and face thoroughly after handling.

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. Use explosion-proof Lighting equipment, ventilating equipment.

Storage conditions : Store at room temperature away from light and moisture.

Incompatible materials : Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	50.00000000 ppm Central Nervous System impairment Eye irritation Peripheral neuropathy.
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm
N-HEXANE UNLABELED (110-54-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	50.00000000 ppm Central Nervous System impairment Eye irritation Peripheral neuropathy.
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm
4-AMINOBIIPHENYL UNLABELED (92-67-1)		
USA OSHA	Remark (OSHA)	Remarks: Bladder cancr,Liver cancer, Exposure by all routes should be carefully controlled to levels as low as possible., Confirmed human carcinogen, Danger of cutaneous absorption;Potential Occupational Carcinogen See Appendix A;Substance listed; for more information see OSHA document 1910.1011:910.1003,1910.1011- This section shall not apply to solid or liquid mixtures containing less than 0.1 percent by weight or volume. This section applies to any area in which this substance is manufactured, processed, repackaged, released, handled, or stored,but shall not apply to transshipment in sealed containers, except for the labeling requirements under paragraphs (e)(2), (3) and (4) of this section. OSHA specifically regulated carcinogen; Skin-see Section 5209.

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8.2. Exposure controls

- Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
- Personal protective equipment : Safety glasses. Gloves. Respiratory protection of the dependent type. Protective clothing.



- Materials for protective clothing : Wear suitable protective clothing and gloves.
- Hand protection : Wear suitable protective clothing and gloves.
- Eye protection : Wear eye protection. Chemical goggles or face shield with safety glasses.
- Skin and body protection : Wear suitable protective clothing, gloves and eye/face protection. Wear suitable protective clothing.
- Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.
- Other information : Do not breathe dust, fume, gas, vapors, mist, spray. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

- Physical state : Liquid
- Appearance : Liquid
- Molecular mass : 86.18 g/mol
- Color : Colorless
- Odor : No data available
- Odor threshold : No data available
- pH : 7
- Relative evaporation rate (butyl acetate=1) : 15.8
- Melting point : -95 °C (-139 °F)
- Freezing point : No data available
- Boiling point : 69 °C (156 °F)
- Flash point : -26 °C (-14.8 °F) - closed cup
- Auto-ignition temperature : 234 °C (453 °F)
- Decomposition temperature : No data available
- Flammability (solid, gas) : Highly flammable liquid and vapor
- Vapor pressure : 341.3 hPa (256.0 mmHg) at 37.7 °C (99.9 °F). 176.0 hPa (132.0 mmHg) at 20 °C
- Relative vapor density at 20 °C : No data available
- Relative density : No data available
- Specific gravity / density : 0.659 g/ml at 25 °C (77 °F)
- Solubility : Water: 0 %
- Log Pow : 3.9 - 4.11
- Log Kow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available
- Explosion limits : 1.2 - 7.7 % (V)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor. vapors may form flammable mixture with air.

10.2. Chemical stability

See storage and expiration date on CoA.

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10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Moisture. Heat. Open flame. Sparks. Direct sunlight.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

May release flammable gases. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE	
LD50 oral rat	25000 mg/kg
LC50 inhalation rat (ppm)	48000 ppm 4 h
ATE CLP (oral)	25000.000 mg/kg body weight

N-HEXANE UNLABELED (110-54-3)	
LD50 oral rat	25000 mg/kg
LC50 inhalation rat (ppm)	48000 ppm 4 h
ATE CLP (oral)	25000.000 mg/kg body weight

4-AMINOBIPHENYL UNLABELED (92-67-1)	
LD50 oral rat	< 500 mg/kg Remarks: Behavioral:Coma. Lungs, Thorax, or Respiration:Dyspnea. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.
ATE CLP (oral)	500.000 mg/kg body weight

2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))	
LD50 oral rat	727 mg/kg
ATE CLP (oral)	727.000 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation. pH: 7
Serious eye damage/irritation	: Causes serious eye irritation. Eyes Rabbit Mild eye irritation pH: 7
Respiratory or skin sensitization	: Not available May be fatal if swallowed and enters airways
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not classified
Reproductive toxicity	: Based on animal experimentation, it is proved that product has shown teratogenic effects. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Probable human reproductive toxin/teratogen.
Specific target organ toxicity – single exposure	: May cause drowsiness or dizziness. May cause damage to organs (peripheral nervous system, testis, kidneys) (in contact with skin, if inhaled, if swallowed).
Specific target organ toxicity – repeated exposure	: Not classified No data available
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms	: Repeated or prolonged skin contact may cause dermatitis and defatting. CNS depression. Slurred speech. Blurred vision. Tears. Redness of the eye tissue. Chest pain. lungs. Pulmonary irritation. Pulmonary edema. Gastrointestinal complaints. Giddiness. Headache. Dizziness. Drowsiness. Unconsciousness. Slowed reaction time. This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
Symptoms/injuries after inhalation	: May be harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact	: May cause skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May be fatal if swallowed and enters airways.

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SECTION 12: Ecological information

12.1. Toxicity

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

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE	
LC50 fish 1	>= 2.5 mg/l Pimephales promelas (fathead minnow) - 96.0 h
EC50 Daphnia 1	>= 3878 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	>= 1284 mg/l Chlorella vulgaris (Fresh water algae) - 3 h.

N-HEXANE UNLABELED (110-54-3)	
LC50 fish 1	>= 2.5 mg/l Pimephales promelas (fathead minnow) - 96.0 h
EC50 Daphnia 1	>= 3878 mg/l Daphnia magna (Water flea) - 48 h
ErC50 (algae)	>= 1284 mg/l Chlorella vulgaris (Fresh water algae) - 3 h.

12.2. Persistence and degradability

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE	
Persistence and degradability	May cause long-term adverse effects in the environment.

N-HEXANE UNLABELED (110-54-3)	
Persistence and degradability	May cause long-term adverse effects in the environment.

2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))	
Persistence and degradability	Not available.

12.3. Bioaccumulative potential

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE	
Log Pow	3.9 - 4.11
Bioaccumulative potential	Not available.

N-HEXANE UNLABELED (110-54-3)	
Log Pow	3.9 - 4.11
Bioaccumulative potential	Not available.

2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))	
Bioaccumulative potential	Not available.

12.4. Mobility in soil

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE	
Ecology - soil	Not available.

N-HEXANE UNLABELED (110-54-3)	
Ecology - soil	Not available.

2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))	
Ecology - soil	Not available.

12.5. Results of PBT and vPvB assessment

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE	
PBT: not yet assessed	

N-HEXANE UNLABELED (110-54-3)	
PBT: not yet assessed	

4-AMINOBIPHENYL UNLABELED (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	

12.6. Other adverse effects

Other adverse effects : Very toxic to aquatic life with long lasting effects. Disposal must be done according to official regulations. Avoid release to the environment.

Other information : Avoid exposure - obtain special instructions before use.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

Product/Packaging disposal recommendations: : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

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Ecology - waste materials : Dispose of as unused product.

SECTION 14: Transport information

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

14.1. UN number

UN-No.(DOT) : 1208
DOT NA no. UN1208

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Hexanes
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

14.3. Additional information

Emergency Response Guide (ERG) Number : 128
Other information : No supplementary information available.

Overland transport

Packing group (ADR) : II
Class (ADR) : 3 - Flammable liquid
Hazard identification number (Kemler No.) : 33
Classification code (ADR) : F1
Hazard labels (ADR) : 3 - Flammable liquids



Orange plates : An orange rectangular label with a black border. It is divided into two horizontal sections. The top section contains the number "33" in black, and the bottom section contains the number "1208" in black.

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 11
EAC : 3YE
Excepted quantities (ADR) : E2

Transport by sea

DOT Vessel Stowage Location : E - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length, but is prohibited from carriage on passenger vessels in which the limiting number of passengers is exceeded.
MFAG-No : 128

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE ES-

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Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L
CFR 175.75)

Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.5. Special precautions for user

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
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N-HEXANE UNLABELED (110-54-3)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
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SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
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SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
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4-AMINOBIIPHENYL UNLABELED (92-67-1)

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of United States SARA Section 313
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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SARA Section 313 - Emission Reporting	Subject to reporting requirements of United States SARA Section 313
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2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))

SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302
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SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313
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15.2. International regulations

CANADA

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE

Listed on the Canadian DSL (Domestic Substances List)

15.2.1. National regulations

No additional information available

15.3. US State regulations

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE

U.S. - California - Proposition 65 - Carcinogens List	No
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2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE ES-

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U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Yes
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

N-HEXANE UNLABELED (110-54-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	No	No	Yes	

4-AMINOBIIPHENYL UNLABELED (92-67-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

N-HEXANE UNLABELED (110-54-3)				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

4-AMINOBIIPHENYL UNLABELED (92-67-1)				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List				

2-AMINONAPHTHALENE UNLABELED (91-59-8 (Unlabeled))				
State or local regulations				
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List				

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2

2 COMPONENT AROMATIC AMINE MIX UNLABELED IN HEXANE

ES-

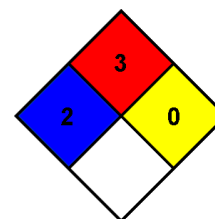
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Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 2	Specific target organ toxicity (single exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H350	May cause cancer
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child
H371	May cause damage to organs
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
R11	Highly flammable
R22	Harmful if swallowed
R36/38	Irritating to eyes and skin
R45	May cause cancer
R49	May cause cancer by inhalation
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R62	Possible risk of impaired fertility
R63	Possible risk of harm to the unborn child
R65	Harmful: may cause lung damage if swallowed
R67	Vapors may cause drowsiness and dizziness
R68	Possible risk of irreversible effects
F	Highly flammable
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

NFPA health hazard	: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard	: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.



HMIS III Rating

Health	: 2 Moderate Hazard - Temporary or minor injury may occur
Flammability	: 3 Serious Hazard
Physical	: 0 Minimal Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product