

Hexane

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 01/06/2022 Version: 0.0

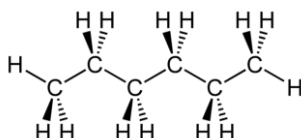
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Substance name : Hexane
EC Index-No. : 601-037-00-0
EC-No. : 203-777-6
CAS-No. : 110-54-3
Type of product : Pure substance
Formula : C₆H₁₄
Chemical structure :



Synonyms : dipropyl / gettysolve-B / hex (=normal-hexane) / hexane, anhydrous / hexane, pure grade / Hexanes / hexyl hydride / n-caproylhydride / n-hexane / n-hexyl hydride / normal-caproyl hydride / normal-hexane / normal-hexyl hydride / skellysolve B / solvent hexane

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Solvent
Cleansing product
Laboratory chemical
Fuel: additive

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ISOLAB Laborgeräte GmbH
Am Dillhof 2 - 63863 Eschau / GERMANY
Tel: + 49 93 74 / 978 55-0
Fax: +49 93 74 / 978 55-29
prodsafe@isolab.de

1.4. Emergency telephone number

| Country | Organisation/Company | Address | Emergency number | Comment |
|---------|---|-----------------------------------|------------------|---------|
| Germany | Giftnotruf der Charité CBF, Haus VIII (Wirtschaftsgebäude), UG | Hindenburgdamm 30 12203 Berlin | +49 30 19240 | |

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
Repr. 2 H361f
Asp. Tox. 1 H304
STOT RE 2 H373
Skin Irrit. 2 H315
STOT SE 3 H336
Aquatic Chronic 2 H411

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

Specific concentration limits:
(C >= 5) STOT RE 2, H373

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour
H361f - Suspected of damaging fertility
H304 - May be fatal if swallowed and enters airways
H373 - May cause damage to organs through prolonged or repeated exposure (if inhaled)
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness
H411 - 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.
P240 - Ground/bond container and receiving equipment.
P273 - Avoid release to the environment.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P314 - Get medical advice/ attention if you feel unwell.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

| Name | Product identifier | % |
|--------|---|-----|
| Hexane | (CAS-No.) 110-54-3 (EC-No.) 203-777-6 (EC Index-No.) 601-037-00-0 | 100 |

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general :

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

First-aid measures after inhalation :

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact :

Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

First-aid measures after eye contact :

Rinse immediately with plenty of water. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion :

Rinse mouth with water. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Doctor: gastric lavage.

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

Symptoms/effects after inhalation :

EXPOSURE TO HIGH CONCENTRATIONS: Central nervous system depression. Dizziness. Narcosis. Drunkenness. Headache. Nausea. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Disturbances of consciousness.

Symptoms/effects after skin contact :

Tingling/irritation of the skin.

Symptoms/effects after eye contact :

Irritation of the eye tissue.

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| | |
|----------------------------------|--|
| Symptoms/effects after ingestion | : Vomiting. Risk of aspiration pneumonia. Nausea. Symptoms similar to those listed under inhalation. |
| Chronic symptoms | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Feeling of weakness. Loss of weight. Dry skin. Tingling/irritation of the skin. Skin rash/inflammation. Disturbed tactile sensibility. Movement disturbances. Myasthenia. Cramps/uncontrolled muscular contractions. Paralysis. Gastrointestinal complaints. Loss of appetite. Visual disturbances. |

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | : Preferably: alcohol resistant foam. Water spray. Polyvalent foam. AFFF foam. BC powder. Carbon dioxide. |
| Unsuitable extinguishing media | : Solid water jet ineffective as extinguishing medium. |

5.2. Special hazards arising from the substance or mixture

| | |
|------------------|--|
| Fire hazard | : DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May build up electrostatic charges: risk of ignition. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard". |
| Explosion hazard | : DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard". |

5.3. Advice for firefighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it. |
| Protection during firefighting | : Heat/fire exposure: compressed air/oxygen apparatus. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|---|
| Protective equipment | : Gloves. Protective goggles. Head/neck protection. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. See "Material-Handling" to select protective clothing. |
| Emergency procedures | : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes. |

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills. |
| Methods for cleaning up | : Liquid spill: dam up with sand/earth. Take up liquid spill into a non combustible material e.g.: sand/earth or kieselguhr. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. |

6.4. Reference to other sections

No additional information available

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store at +5°C to +30°C
Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.
Storage area : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage
Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.
Packaging materials : SUITABLE MATERIAL: steel. stainless steel. aluminium. iron. copper. bronze. polyethylene. polypropylene. glass. MATERIAL TO AVOID: No data available.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Hexane (110-54-3) | | |
|-------------------|--|--|
| EU | Local name | n-Hexane |
| EU | IOELV TWA (mg/m ³) | 72 mg/m ³ (n-Hexane; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value) |
| EU | IOELV TWA (ppm) | 20 ppm (n-Hexane; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value) |
| Austria | Local name | n-Hexan |
| Austria | MAK (mg/m ³) | 72 mg/m ³ |
| Austria | MAK (ppm) | 20 ppm |
| Austria | MAK Short time value (mg/m ³) | 288 mg/m ³ |
| Austria | MAK Short time value (ppm) | 80 ppm |
| Belgium | Local name | n-Hexane # n-Hexaan |
| Belgium | Limit value (mg/m ³) | 72 mg/m ³ (n-Hexane; Belgium; Time-weighted average exposure limit 8 h) |
| Belgium | Limit value (ppm) | 20 ppm (n-Hexane; Belgium; Time-weighted average exposure limit 8 h) |
| Bulgaria | Local name | n-Хексан |
| Bulgaria | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Bulgaria | OEL TWA (ppm) | 20 ppm |
| Bulgaria | Notes | • (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност) |
| Croatia | Local name | n-Heksan |
| Croatia | GVI (granična vrijednost izloženosti) (mg/m ³) | 72 mg/m ³ |
| Croatia | GVI (granična vrijednost izloženosti) (ppm) | 20 ppm |
| Croatia | Naznake (HR) | EU** (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2006/15/ EC (druga lista)); F (lako zapaljivo); Xn (Štetno); N (opasno za okoliš); Repr. kat. 3 (tvari za koje se pretpostavlja da bi mogle smanjiti plodnost kod ljudi i/li – tvari za koje se pretpostavlja da bi mogle iskazati razvojnu otrovnost kod ljudi) |
| Czech Republic | Local name | n-Hexan |

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| Hexane (110-54-3) | | |
|--------------------------|---|--|
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 70 mg/m ³ |
| Czech Republic | Expoziční limity (PEL) (ppm) | 19.9 ppm |
| Czech Republic | Expoziční limity (NPK-P) (mg/m ³) | 200 mg/m ³ |
| Czech Republic | Expoziční limity (NPK-P) (ppm) | 57 ppm |
| Czech Republic | Remark (CZ) | D, P |
| Denmark | Local name | n-Hexan |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 72 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 20 ppm |
| Denmark | Anmærkninger (DK) | E (betyder, at stoffet har en EF-grænseværdi) |
| Estonia | Local name | n-heksaan |
| Estonia | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Estonia | OEL TWA (ppm) | 20 ppm |
| Finland | Local name | n-Heksaani |
| Finland | HTP-arvo (8h) (mg/m ³) | 72 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 20 ppm |
| Finland | Huomautus (FI) | iho |
| France | Local name | n-Hexane |
| France | VME (mg/m ³) | 72 mg/m ³ (n-Hexane; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante) |
| France | VME (ppm) | 20 ppm (n-Hexane; France; Time-weighted average exposure limit 8 h; VRC: Valeur réglementaire contraignante) |
| France | Note (FR) | Valeurs réglementaires contraignantes; substance classée toxique pour la reproduction de catégorie 2 |
| Germany | Local name | n-Hexan |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 180 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 50 ppm |
| Germany | Remark (TRGS 900) | DFG,EU,Y |
| Greece | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Greece | OEL TWA (ppm) | 20 ppm |
| Hungary | Local name | n-HEXÁN |
| Hungary | AK-érték | 72 mg/m ³ |
| Hungary | Megjegyzések (HU) | b, i; II.1. |
| Ireland | Local name | n-Hexane |
| Ireland | OEL (8 hours ref) (mg/m ³) | 72 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 20 ppm |
| Ireland | Notes (IE) | IOELV, Sk |
| Italy | Local name | n-Esano |
| Italy | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Italy | OEL TWA (ppm) | 20 ppm |
| Latvia | Local name | n-Heksāns |
| Latvia | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Latvia | OEL TWA (ppm) | 20 ppm |
| Lithuania | Local name | n-heksanas |
| Lithuania | IPRV (mg/m ³) | 72 mg/m ³ |
| Lithuania | IPRV (ppm) | 20 ppm |
| Lithuania | Remark (LT) | R (reprodukcijai toksiškas poveikis) |
| Luxembourg | Local name | n-Hexane |

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| Hexane (110-54-3) | | |
|--------------------------|--|--|
| Luxembourg | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Luxembourg | OEL TWA (ppm) | 20 ppm |
| Malta | Local name | n-Hexane |
| Malta | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Malta | OEL TWA (ppm) | 20 ppm |
| Netherlands | Local name | n-Hexaan |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 72 mg/m ³ (n-Hexaan; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value) |
| Netherlands | Grenswaarde TGG 8H (ppm) | 20 ppm (n-Hexaan; Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value) |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ³) | 144 mg/m ³ (n-Hexaan; Netherlands; Short time value; Public occupational exposure limit value) |
| Netherlands | Grenswaarde TGG 15MIN (ppm) | 40 ppm (n-Hexaan; Netherlands; Short time value; Public occupational exposure limit value) |
| Poland | Local name | Heksan (n-heksan) |
| Poland | NDS (mg/m ³) | 72 mg/m ³ |
| Portugal | Local name | n-Hexano |
| Portugal | OEL TWA (ppm) | 50 ppm |
| Romania | Local name | Hexan (n) |
| Romania | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Romania | OEL TWA (ppm) | 20 ppm |
| Slovakia | Local name | n-Hexán |
| Slovakia | NPHV (priemerná) (mg/m ³) | 72 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 20 ppm |
| Slovakia | OEL STEL (mg/m ³) | 140 mg/m ³ |
| Slovakia | OEL STEL (ppm) | 40 ppm |
| Slovenia | Local name | n-heksan |
| Slovenia | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Slovenia | OEL TWA (ppm) | 20 ppm |
| Spain | Local name | n-Hexano |
| Spain | VLA-ED (mg/m ³) | 72 mg/m ³ |
| Spain | VLA-ED (ppm) | 20 ppm |
| Spain | Notes | VLB® (Agente químico que tiene Valor Límite Biológico específico en este documento), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país). |
| Sweden | Local name | n-Hexan |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 90 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 25 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 180 mg/m ³ |
| Sweden | kortidsvärde (KTV) (ppm) | 50 ppm |
| Sweden | Anmärkning (SE) | V (Vägledande kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas) |
| United Kingdom | Local name | n-Hexane |

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| Hexane (110-54-3) | | |
|--------------------------|---|---|
| United Kingdom | WEL TWA (mg/m ³) | 72 mg/m ³ n-Hexane; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| United Kingdom | WEL TWA (ppm) | 20 ppm n-Hexane; United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005) |
| Iceland | Local name | n- Hexan |
| Iceland | OEL (8 hours ref) (mg/m ³) | 72 mg/m ³ |
| Iceland | OEL (8 hours ref) (ppm) | 20 ppm |
| Russian Federation | Local name | Гексан |
| Russian Federation | OEL Ceiling (mg/m ³) | 900 mg/m ³ |
| Russian Federation | OEL TWA (mg/m ³) | 300 mg/m ³ |
| Russian Federation | Remark (RU) | 4 класс опасности - умеренно опасное; п (пары и/или газы) |
| Norway | Local name | n-heksan |
| Norway | Grenseverdier (AN) (mg/m ³) | 72 mg/m ³ |
| Norway | Grenseverdier (AN) (ppm) | 20 ppm |
| Norway | Merknader (NO) | R (Kjemikalier som skal betraktes som reproduksjonstoksiske); E (EU har en veiledende grenseverdi for stoffet) |
| Switzerland | Local name | n-Hexan |
| Switzerland | VME (mg/m ³) | 180 mg/m ³ |
| Switzerland | VME (ppm) | 50 ppm |
| Switzerland | VLE (mg/m ³) | 1440 mg/m ³ |
| Switzerland | VLE (ppm) | 400 ppm |
| Switzerland | Remark (CH) | H B R2 _f SS _c - NS, Auge - NIOSH |
| Turkey | Local name | n-Hekzan |
| Turkey | OEL TWA (mg/m ³) | 72 mg/m ³ |
| Turkey | OEL TWA (ppm) | 20 ppm |
| Australia | Local name | Hexane (n-Hexane) |
| Australia | TWA (mg/m ³) | 72 mg/m ³ |
| Australia | TWA (ppm) | 20 ppm |
| USA - ACGIH | Local name | n-Hexane |
| USA - ACGIH | ACGIH TWA (ppm) | 50 ppm (n-Hexane; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value) |
| USA - ACGIH | Remark (ACGIH) | CNS impair; peripheral neuropathy; eye irr; Skin; BEI |
| USA - OSHA | Local name | n-Hexane |
| USA - OSHA | OSHA PEL (TWA) (mg/m ³) | 1800 mg/m ³ |
| USA - OSHA | OSHA PEL (TWA) (ppm) | 500 ppm |

8.2. Exposure controls

Materials for protective clothing:

GIVE EXCELLENT RESISTANCE: nitrile rubber. PVA. tetrafluoroethylene. viton. GIVE GOOD RESISTANCE: No data available. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: butyl rubber. natural rubber. neoprene. polyethylene. PVC. styrene-butadiene rubber

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Head/neck protection. Protective clothing

Respiratory protection:

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Wear gas mask with filter type A if conc. in air > exposure limit

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Molecular mass | : 86.18 g/mol |
| Colour | : Colourless. |
| Odour | : Petroleum-like odour. Mild odour. |
| Odour threshold | : 64 - 244 ppm 225 - 859 mg/m ³ |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : > 10 |
| Relative evaporation rate (ether=1) | : 1.3 |
| Melting point | : -95 °C (1013 hPa) |
| Freezing point | : No data available |
| Boiling point | : 69 °C (1013 hPa) |
| Flash point | : -22 °C (1013 hPa) |
| Critical temperature | : 234 °C |
| Auto-ignition temperature | : 225 °C (1013 hPa) |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : 160 hPa (20 °C) |
| Critical pressure | : 30120 hPa |
| Relative vapour density at 20 °C | : 2.97 |
| Relative density | : 0.66 (25 °C) |
| Relative density of saturated gas/air mixture | : 1.3 |
| Density | : 660 kg/m ³ (20 °C) |
| Solubility | : Insoluble in water. Substance floats in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in oils/fats. Water: < 0.01 g/100ml (insoluble) Ethanol: soluble Ether: soluble Acetone: soluble |
| Log Pow | : 3.5 - 3.94 (Calculated) |
| Viscosity, kinematic | : 0.50 mm ² /s (20 °C) |
| Viscosity, dynamic | : 0.0003 Pa.s (25 °C) |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : 1.0 - 8.1 vol % |

9.2. Other information

| | |
|--------------------------|---|
| Minimum ignition energy | : 0.24 mJ |
| Specific conductivity | : 100 pS/m |
| Saturation concentration | : 564 g/m ³ |
| VOC content | : 100 % |
| Other properties | : Gas/vapour heavier than air at 20°C. Clear. Volatile. Substance has neutral reaction. May generate electrostatic charges. |

SECTION 10: Stability and reactivity

10.1. Reactivity

Upon combustion: CO and CO₂ are formed. Reacts with (strong) oxidizers: (increased) risk of fire/explosion.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

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10.4. Conditions to avoid

No additional information available

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

| Hexane (110-54-3) | |
|--------------------|--------------|
| LD50 oral rat | 25000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility.
STOT-single exposure : May cause drowsiness or dizziness.
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure (if inhaled).
Aspiration hazard : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Dangerous for the environment.
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Not included in the list of fluorinated greenhouse gases (Regulation (EC) No 842/2006). TA-Luft Klasse 5.2.5/l.
Ecology - water : Fouling to shoreline. Toxic to fishes. Toxic to invertebrates (Daphnia). Harmful to algae.

| Hexane (110-54-3) | |
|-------------------------|---|
| LC50 fish 1 | 2.5 mg/l (LC50; 96 h) |
| EC50 Daphnia 1 | 2.1 mg/l (EC50; 48 h) |
| Threshold limit algae 2 | 26 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system) |

12.2. Persistence and degradability

| Hexane (110-54-3) | |
|-------------------------------|---|
| Persistence and degradability | Readily biodegradable in water. Photooxidation in water. Biodegradable in the soil. Low potential for mobility in soil. |
| ThOD | 3.52 g O ₂ /g substance |
| BOD (% of ThOD) | 0.63 (Literature study) |

12.3. Bioaccumulative potential

| Hexane (110-54-3) | |
|---------------------------|---|
| BCF fish 1 | 501.187 (BCF; Other; Pimephales promelas) |
| Log Pow | 3.5 - 3.94 (Calculated) |
| Bioaccumulative potential | Potential for bioaccumulation (500 ≤ BCF ≤ 5000). |

12.4. Mobility in soil

| Hexane (110-54-3) | |
|-------------------|--|
| Surface tension | 0.018 N/m (25 °C; 1 g/l) |
| Log Koc | Koc,2187.76; QSAR; log Koc; 3.34; QSAR |

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods






Product/Packaging disposal recommendations : Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Incinerate under surveillance with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Additional information : LWCA (the Netherlands): KGA category 03. Hazardous waste according to Directive 2008/98/EC.

European List of Waste (LoW) code : 07 01 04* - other organic solvents, washing liquids and mother liquors

SECTION 14: Transport information

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

| ADR | IMDG | IATA | ADN | RID |
|--|---|---|--|---|
| 14.1. UN number | | | | |
| 1208 | 1208 | 1208 | 1208 | 1208 |
| 14.2. UN proper shipping name | | | | |
| HEXANES | HEXANES | Hexanes | HEXANES | HEXANES |
| Transport document description | | | | |
| UN 1208 HEXANES, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS | UN 1208 HEXANES, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS | UN 1208 Hexanes, 3, II, ENVIRONMENTALLY HAZARDOUS | UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS | UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS |
| 14.3. Transport hazard class(es) | | | | |
| 3 | 3 | 3 | 3 | 3 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| II | II | II | II | II |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment : Yes | Dangerous for the environment : Yes Marine pollutant : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes | Dangerous for the environment : Yes |
| No supplementary information available | | | | |

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1
 Limited quantities (ADR) : 11
 Excepted quantities (ADR) : E2
 Packing instructions (ADR) : P001, IBC02, R001
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T4
 Portable tank and bulk container special provisions (ADR) : TP1
 Tank code (ADR) : LGBF
 Vehicle for tank carriage : FL
 Transport category (ADR) : 2
 Special provisions for carriage - Operation (ADR) : S2, S20

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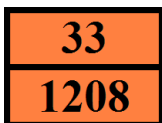
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Hazard identification number (Kemler No.) : 33

Orange plates :



Tunnel restriction code (ADR) : D/E

EAC code : 3YE

- Transport by sea

Transport regulations (IMDG) : Subject

Limited quantities (IMDG) : 1 L

Excepted quantities (IMDG) : E2

Packing instructions (IMDG) : P001

IBC packing instructions (IMDG) : IBC02

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-D

Stowage category (IMDG) : E

Properties and observations (IMDG) : Colourless, volatile liquids with a faint odour. Explosive limits: 1.1% to 7.5% n-HEXANE: flashpoint -22°C c.c. boiling point 69°C. NEOHEXANE: flashpoint -48°C c.c. boiling point 50°C. Immiscible with water. Slightly irritating to skin, eyes and mucous membranes.

MFAG-No : 128

- Air transport

Transport regulations (IATA) : Subject to the provisions

PCA Excepted quantities (IATA) : E2

PCA Limited quantities (IATA) : Y341

PCA limited quantity max net quantity (IATA) : 1L

PCA packing instructions (IATA) : 353

PCA max net quantity (IATA) : 5L

CAO packing instructions (IATA) : 364

CAO max net quantity (IATA) : 60L

ERG code (IATA) : 3H

- Inland waterway transport

Classification code (ADN) : F1

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

- Rail transport

Transport regulations (RID) : Subject

Classification code (RID) : F1

Limited quantities (RID) : 1L

Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02, R001

Mixed packing provisions (RID) : MP19

Portable tank and bulk container instructions (RID) : T4

Portable tank and bulk container special provisions (RID) : TP1

Tank codes for RID tanks (RID) : LGBF

Transport category (RID) : 2

Colis express (express parcels) (RID) : CE7

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Hazard identification number (RID) : 33

14.7. Transport in bulk according to Annex II of Marpol 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

No REACH Annex XVII restrictions

Hexane is not on the REACH Candidate List

Hexane is not on the REACH Annex XIV List

VOC content : 100 %

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 2, hazard to waters (Classification according to VwVwS, Annex 1 or 2; ID No. 124)

WGK remark : Classification water polluting in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 2)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

Waterbevaarlijkheid : 6 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : Hexane is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| CLP | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 |
| EC50 | Median effective concentration |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |

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| | |
|-----|--|
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
|-----|--|

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| Aquatic Chronic 2 | Hazardous to the aquatic environment — Chronic Hazard, Category 2 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT RE 2 | Specific target organ toxicity — Repeated exposure, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| H225 | Highly flammable liquid and vapour |
| H304 | May be fatal if swallowed and enters airways |
| H315 | Causes skin irritation |
| H336 | May cause drowsiness or dizziness |
| H361f | Suspected of damaging fertility |
| H373 | May cause damage to organs through prolonged or repeated exposure |
| H411 | Toxic to aquatic life with long lasting effects |

SDS ISOLAB

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