

Hexane

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 03/04/2017

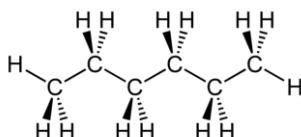
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

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 GmbH
Bahnhofstrasse 10, D-97877
Wertheim - Germany
T +49 93 42 912 355 - F +49 93 42 912 357
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 temperature : 20 °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 : Store in a cool area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.
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 граничне 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/ili – 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 (25 °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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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
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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