

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

- **1.1 Product identifier**
- **Trade name** *n-Hexane 99 %*
- **Article number:** 205383
- **CAS Number:**
110-54-3
- **EC number:**
203-777-6
- **Index number:**
601-037-00-0
- **Registration number** 01-2119480412-44-0001
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Identified uses**
 Manufacture of substance - Industrial
 Distribution of substance - Industrial
 Formulation & (re)packing of substances and mixtures - Industrial
 Use in Coatings - Industrial
 Use in Coatings - Professional
 Use in Cleaning Agents - Industrial
 Use in Cleaning Agents - Professional
 Blowing agents - Industrial
 Use as a Fuel - Industrial
 Functional Fluids - Industrial
 Functional Fluids - Professional
 Use in Laboratories - Industrial
 Use in Laboratories - Professional
 Polymer processing - Industrial
 Polymer processing - Professional
 Mining chemicals - Industrial
- **Application of the substance / the mixture** Solvents
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Haltermann GmbH
 Schlengendeich 17
 D-21107 Hamburg, Germany
 Tel.: +49-(0)40-33318-0
 E-mail: Info-haltermann@h-c-s-group.com
- **Informing department:** Product stewardship
- **1.4 Emergency telephone number:** TUIS: +49 (0)69-305 6418

2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Repr. 2 H361f Suspected of damaging fertility.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
 Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

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GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Xn; Harmful

R48/20-62-65: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of impaired fertility. Harmful: may cause lung damage if swallowed.

Xi; Irritant

R38: Irritating to skin.

F; Highly flammable

R11: Highly flammable.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

Repr. Cat. 3

· **Information concerning particular hazards for human and environment: Has a narcotizing effect.**

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

· **Signal word Danger**

· **Hazard-determining components of labelling:**

n-hexane

· **Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

H361f Suspected of damaging fertility.

H336 May cause drowsiness or dizziness.

H373 May cause damage to organs through prolonged or repeated exposure.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

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· Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards
· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients
· 3.1 Substances
· CAS No. Designation:

110-54-3 n-hexane

· Identification number(s):
· **EC number:** 203-777-6· **Index number:** 601-037-00-0
4 First aid measures
· 4.1 Description of first aid measures

- **After inhalation** In case of unconsciousness bring patient into stable side position for transport.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Do not induce vomiting; instantly call for medical help.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Danger** Aspiration hazard
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures
· 5.1 Extinguishing media
· Suitable extinguishing agents
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.· **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
· 5.3 Advice for firefighters
· **Protective equipment:** No special measures required.
6 Accidental release measures
· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or water bodies.

Prevent material from reaching sewage system, holes and cellars.

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Inform respective authorities in case product reaches water or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

7 Handling and storage

· **7.1 Precautions for safe handling**

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and containers:** Store in cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

· **7.3 Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1 Control parameters**

· **Components with critical values that require monitoring at the workplace:**

110-54-3 n-hexane

WEL () Long-term value: 72 mg/m³, 20 ppm

· **DNELs**

110-54-3 n-hexane

Oral	Consumers	4 mg/kg bw/day (Long-term - systemic)
Dermal	Consumers	5.3 mg/kg bw/day (Long-term - systemic)
	Workers	11 mg/kg bw/day (Long-term - systemic)
Inhalative	Consumers	16 mg/m ³ (Long-term - systemic)
	Workers	75 mg/m ³ (Long-term - systemic)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

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· **Breathing equipment:**

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.

Filter A.

· **Protection of hands:**

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Nitrile rubber, NBR

> 0,38 mm

· **Penetration time of glove material** > 480 min (EN 374)

· **Eye protection:** Tightly sealed safety glasses.

9 Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid

Colour: Colourless

· **Smell:** Characteristic

· **Change in condition**

Melting point/Melting range: -95 °C

Boiling point/Boiling range: 67 °C

· **Flash point:** -26 °C

· **Ignition temperature:** 240 °C

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.

· **Critical values for explosion:**

Lower: 1.2 Vol %

Upper: 7.4 Vol %

· **Density at 20 °C** 0.66 g/cm³

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix

· **9.2 Other information** No further relevant information available.

10 Stability and reactivity

· **10.1 Reactivity**

· **10.2 Chemical stability**

· **Conditions to be avoided:** No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known

· **10.4 Conditions to avoid** No further relevant information available.

· **10.5 Incompatible materials:** No further relevant information available.

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· **10.6 Hazardous decomposition products:** None

11 Toxicological information

· **11.1 Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:**

110-54-3 *n*-hexane

Oral	LD50	16000 mg/kg (rat) (OECD 401)
Dermal	LD50	> 3350 mg/kg (rabbit) (OECD 402)
Inhalative	LC50 /4 h	259,3 mg/L (rat) (OECD 403)

· **Primary irritant effect:**· **on the skin:** Irritant for skin and mucous membranes.· **on the eye:** No irritant effect.· **Sensitization:** No sensitizing effect known.· **Additional toxicological information:**

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Repr. 2

12 Ecological information

· **12.1 Toxicity**· **Aquatic toxicity:** No further relevant information available.· **12.2 Persistence and degradability** No further relevant information available.· **12.3 Bioaccumulative potential** No further relevant information available.· **12.4 Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 2 (Assessment by list): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1 Waste treatment methods**· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Waste disposal key number:** 55370

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1208

- **14.2 UN proper shipping name**
- **ADR** 1208 HEXANES, ENVIRONMENTALLY HAZARDOUS
- **IMDG** HEXANES, MARINE POLLUTANT
- **IATA** HEXANES

- **14.3 Transport hazard class(es)**
- **ADR**



- **Class** 3 (F1) Flammable liquids.
- **Label** 3

- **IMDG**



- **Class** 3 Flammable liquids.
- **Label** 3

- **IATA**



- **Class** 3 Flammable liquids.
- **Label** 3

- **14.4 Packing group**
- **ADR, IMDG, IATA** II

- **14.5 Environmental hazards:**
- **Marine pollutant:** Yes
- **Special marking (ADR):** Symbol (fish and tree)

- **14.6 Special precautions for user** Warning: Flammable liquids.
- **Kemler Number:** 33
- **EMS Number:** F-E,S-D
- **Segregation groups** IMDG Code Segregation group: None

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

- **Transport/Additional information:**

- **ADR**
- **Limited quantities (LQ)** 1L

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· Transport category	2
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN1208, HEXANES, ENVIRONMENTALLY HAZARDOUS, 3, II

15 Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

· **TSCA (Toxic Substances Control Act)**

Substance is listed.

· **Canadian Domestic Substances List (DSL)**

Substance is listed.

· **Philippines Inventory of Chemicals and Chemical Substances (PICCS)**

Substance is listed.

· **Chinese Chemical Inventory of Existing Chemical Substances (IECSC)**

Substance is listed.

· **Australian Inventory of Chemical Substances (AICS)**

Substance is listed.

· **Korean Existing Chemical Inventory (KECI)**

Substance is listed.

· **New Zealand Inventory of Chemicals (NZIoC)**

Substance is listed.

· **Japan Existing and New Chemical Substance List (ENCS)**

Substance is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· *** Data compared to the previous version altered.**

Annex: Exposure scenario

· **Short title of the exposure scenario**

n-Hexane

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http://www.haltermann.com/files/ES_HEXANE.pdf