

n-Hexane

34859-2.5L

Version 1.6

Revision Date 17.12.2022

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

1.1. Product identifier

Product name : n-Hexane
SDS-number : 000000020212
Type of product : Substance
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.
In accordance to the Article 14 (1) of the REACH Regulation (EC) No 1907/2006, exposure estimation and risk characterisation is not required.

Chemical name : n-hexane
Index-No. : 601-037-00-0
REACH Registration Number : no data available

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

Uses advised against : none

1.3. Details of the supplier of the safety data sheet

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :
For further information, please contact: : SafetyDataSheet@Honeywell.com

1.4. Emergency telephone number

Emergency telephone number : +1-703-527-3887 (ChemTrec-Transport)
+1-303-389-1414 (Medical)

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Country based Poison : see chapter 15.1
Control Center

SECTION 2: Hazards identification


2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Flammable liquids Category 2
H225 Highly flammable liquid and vapour.
Reproductive toxicity Category 2
H361f Suspected of damaging fertility.
Specific target organ toxicity - repeated exposure Category 2
H373 May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard Category 1
H304 May be fatal if swallowed and enters airways.
Skin irritation Category 2
H315 Causes skin irritation.
Specific target organ toxicity - single exposure Category 3 - Central nervous system
H336 May cause drowsiness or dizziness.
Long-term (chronic) aquatic hazard Category 2
H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms : 

Signal word : Danger

Hazard statements	:	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.

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Precautionary statements	: P201 P210 P243 P260 P280 P301 + P330 + P331 P304 + P340 P308 + P313	Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical advice/ attention.
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2.3. Other hazards

Highly flammable. Take measures to prevent the build up of electrostatic charge. Results of PBT and vPvB assessment, see chapter 12.5.

Highly flammable liquid and vapour. May be fatal if swallowed and enters airways. May be harmful in contact with skin. Causes skin irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
n-hexane	110-54-3 601-037-00-0 203-777-6	Flam. Liq. 2; H225 Repr. 2; H361f STOT RE 2; H373 Asp. Tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	100 %	STOT RE 2; H373:>= 5 %

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3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:

First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:

Remove to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact:

After contact with skin, wash immediately with plenty of soap and water. Call a physician if irritation develops or persists.

Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Consult a physician.

Ingestion:

When swallowed, allow water to be drunk. Do NOT induce vomiting. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray
Foam
Carbon dioxide (CO₂)
Dry powder

Extinguishing media which shall not be used for safety reasons:

High volume water jet

5.2. Special hazards arising from the substance or mixture

Flammable.
Vapours may form explosive mixtures with air.
Vapours are heavier than air and may spread along floors.
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Ensure adequate ventilation.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Soak up with inert absorbent material.
Pick for disposal in tightly closed containers
Do not pick up with the help of saw-dust or other combustible substances.

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6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:

Exhaust ventilation at the object is necessary. Use explosion-proof equipment.

Advice on protection against fire and explosion:

The product is easily combustible. The heavy vapours can overcome a considerable distance up to the source of ignition. Use only in explosion-proof areas. Take measures to prevent the build up of electrostatic charge. Keep away from sources of ignition - No smoking.

Hygiene measures:

Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday. Recommended preventive skin protection

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

no additional data available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
n-hexane	EH40 WEL TWA	72 mg/m ³ 20 ppm		
n-hexane	EH40 WEL			Listed
n-hexane	EU ELV TWA	72 mg/m ³ 20 ppm		Indicative

TWA - Time weighted average

DNEL/ PNEC-Values

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
n-hexane	Workers / Long-term systemic effects		75 mg/m ³	Inhalation	
n-hexane	Workers / Long-term systemic effects		11mg/kg bw/d	Skin contact	
n-hexane	Consumers / Long-term systemic effects		16 mg/m ³	Inhalation	
n-hexane	Consumers / Long-term systemic effects		5,3mg/kg bw/d	Skin contact	
n-hexane	Consumers / Long-term systemic effects		4mg/kg bw/d	Ingestion	

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No PNEC data available.

8.2. Exposure controls

Occupational exposure controls

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.

Avoid exposure - obtain special instructions before use.

Personal protective equipment

Respiratory protection:

In the case of vapour formation use a respirator with an approved filter.

Hand protection:

Glove material: Nitrile rubber

Break through time: > 480 min

Glove thickness: 0,4 mm

Camatril® 730

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer´s directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:

Safety goggles

Skin and body protection:

Protective suit

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Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: liquid
Colour	: colourless
Odour	: characteristic
molecular weight	: 86,18 g/mol
Melting point/range	: -95 °C
Boiling point/boiling range	: 66 - 69 °C at 1.013 hPa
Flammability	: Not applicable
Upper explosion limit	: 7,4 %(V)
Lower explosion limit	: 1,2 %(V)
Flash point	: -26 °C Method: closed cup
Auto-ignition temperature	: 240 °C
Decomposition temperature	: Stable under recommended storage conditions.
pH	: Not applicable
Viscosity, kinematic	: < 0,5 mm ² /s at 40 °C
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: log Pow 4,11

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Vapour pressure	:	540 hPa at 50 °C
Vapour pressure	:	160 hPa at 20 °C
Density	:	0,660 - 0,668 g/cm ³ at 20 °C
Relative vapour density	:	No data available

9.2 Other Information

Evaporation rate	:	No data available
Viscosity, dynamic	:	0,31 mPa.s at 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.
Keep away from direct sunlight.

10.5. Incompatible materials

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Formation of explosive gas/air mixtures.

10.6. Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:

LD50

Species: Rat

Value: 15.840 mg/kg

LD50

Species: Mouse

Value: 5.000 mg/kg

Acute dermal toxicity:

LD50

Species: Rabbit

Value: 3.000 mg/kg

Acute inhalation toxicity:

LC50

Species: Rat

Value: 48000 ppm

Exposure time: 4 h

Skin irritation:

Species: Rabbit

Result: irritating

Eye irritation:

Species: Rabbit

Classification: slightly irritant

Respiratory or skin sensitisation:

No data available

Aspiration hazard:

May be fatal if swallowed and enters airways.

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11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:

Solvent removes skin oil from the skin.
Solvent vapours have a narcotic effect if inhaled in high concentrations.
Danger of serious damage to health by prolonged exposure.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:

LC50
Species: Pimephales promelas (fathead minnow)
Value: 2,5 mg/l
Exposure time: 96 h

Toxicity to aquatic plants:

No data available

Toxicity to Microorganisms:

No data available

Toxicity to aquatic invertebrates:

EC50
Species: Daphnia magna (Water flea)
Value: 2,1 mg/l
Exposure time: 48 h

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

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No data available

12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

Should not be released into the environment.
May cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:

Dispose according to legal requirements.

Packaging:

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:

Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC
Regulation No. 1013/2006

For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number

ADR/RID:1208

IMDG:1208

IATA:1208

14.2 UN proper shipping name

ADR/RID:HEXANES

IMDG:HEXANES

IATA:Hexanes

14.3 Transport hazard class(es)

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ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: yes

Marine pollutant: yes

14.6 Special precautions for user

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Directive 2012/18/EC SEVESO III Listed in Regulation : P5c: FLAMMABLE LIQUIDS	Quantity: 5.000.000 kg Quantity: 50.000.000 kg	
Directive 2012/18/EC SEVESO III Listed in Regulation : E2: Hazardous to the Aquatic Environment	Quantity: 200.000 kg Quantity: 500.000 kg	
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

Poison Control Center

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Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212
Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400
Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftnformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

Other inventory information

US. Toxic Substances Control Act
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended

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On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List

On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)

On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)

On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)

On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand

On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)

On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

n-hexane : H225 Highly flammable liquid and vapour.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

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H411 Toxic to aquatic life with long lasting effects.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very bioaccumulative substance
PBT Persistent, bioaccumulative und toxic substance

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user.
This information should not constitute a guarantee for any specific product properties.
