HPC Standards GmbH
Am Wieseneck 7
04451 Cunnersdorf
Phone 0049 34291 3372-36
Fax 0049 34291 3372-39
www.hpc-standards.com
contact@hpc-standards.com

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 22 Jun 2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

n-Decane

1.1. Catalog No.:

676931

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

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Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Flammable liquids (Category 3), H226
Aspiration hazard (Category 1), H304 Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xn Harmful R10, R65, R66

2.2. Label elements

2.2.1. Pictogram

2.2.2.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word Danger
Hazard statement(s)

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H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways Precautionary statement(s)
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P331 Do NOT induce vomiting.
Supplemental Hazard information (EU)
EUH066 Repeated exposure may cause skin dryness or cracking.
2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Formula : C10H22
Molecular Weight : 142,28 g/mol
CAS-No. : 124-18-5
EC-No. : 204-686-4
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component Classification Concentration
Decane
CAS-No.
EC-No.
124-18-5
204-686-4
Flam. Liq. 3; Asp. Tox. 1;
H226, H304, EUH066
<= 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component Classification Concentration
Decane
CAS-No.
EC-No.
124-18-5
204-686-4
Xn, R10 - R65 - R66 <= 100 %

3.1.1. Formula

C10H22

3.1.2. Molecular Weight (g/mol)

142.28

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3.1.3. CAS-No.

124-18-5

4. FIRST AID MEASURES

4.1 Description of first aid measures
General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
4.3 Indication of any immediate medical attention and special treatment needed
no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
Carbon oxides
5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.
5.4 Further information
Use water spray to cool unopened containers

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
For personal protection see section 8.
6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
6.3 Methods and materials for containment and cleaning up
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
6.4 Reference to other sections
For disposal see section 13

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7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. 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.
Store under inert gas.
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday Personal protective equipment
Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Body Protection
Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Appearance Form: liquid, clear
Colour: colourless
b) Odour no data available
c) Odour Threshold no data available
d) pH no data available
e) Melting point/freezing point
Melting point/range: -30 °C - lit.
f) Initial boiling point and boiling range
174 °C - lit g) Flash point 46,0 °C - closed cup
h) Evapouration rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits

Upper explosion limit: 2,6 %(V)
Lower explosion limit: 0,8 %(V)
k) Vapour pressure 5,1 hPa at 37,7 °C
1,3 hPa at 16,5 °C
1 hPa at 20 °C
l) Vapour density no data available
m) Relative density 0,73 g/mL at 25 °C
n) Water solubility no data available
o) Partition coefficient: noctanol/
water
no data available
p) Auto-ignition
temperature
210,0 °C
206 °C at 1.013 hPa
q) Decomposition
temperature
no data available
r) Viscosity 1,16 mm2/s at 20 °C -
s) Explosive properties no data available
t) Oxidizing properties no data available
9.2 Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity
no data available
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
no data available
10.4 Conditions to avoid
Heat, flames and sparks.
10.5 Incompatible materials
Strong oxidizing agents
10.6 Hazardous decomposition products
Other decomposition products - no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Acute toxicity
LD50 Oral - rat - male and female - > 5.000 mg/kg
(OECD Test Guideline 401)
LC50 Inhalation - rat - male - 8 h - > 1369 ppm
(OECD Test Guideline 403) LC50 Inhalation - rat - male and female - 4 h - > 5,6 mg/l
(OECD Test Guideline 403)
LD50 Dermal - rabbit - male and female - > 5.000 mg/kg
(OECD Test Guideline 402)
Skin corrosion/irritation
Skin - rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - rabbit
Result: No eye irritation
(OECD Test Guideline 405)
Respiratory or skin sensitisation

Maximisation Test - guinea pig
Result: Does not cause skin sensitisation.
(OECD Test Guideline 406)
Germ cell mutagenicity
Ames test
S. typhimurium
Result: negative
Mutagenicity (micronucleus test)
mouse - male and female
Result: negative
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
no data available
Specific target organ toxicity - single exposure
no data available
Specific target organ toxicity - repeated exposure
no data available Aspiration hazard
no data available
Additional Information
Repeated dose toxicity - rat - male and female - Oral - No observed adverse effect level - > 5.000 mg/kg
RTECS: HD6550000
Acts as a simple asphyxiant by displacing air., anesthetic effects, Difficulty in breathing, Headache, Dizziness, Prolonged or repeated exposure to skin causes defatting and dermatitis., narcosis

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Toxicity to fish semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 1.000 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates
static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h
Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - > 1.000 mg/l - 72 h (OECD Test Guideline 201)
12.2 Persistence and degradability
Biodegradability aerobic - Exposure time 28 d
Result: 83,2 % - Readily biodegradable.
(OECD Test Guideline 301F)
12.3 Bioaccumulative potential
no data available
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product

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14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 2247 IMDG: 2247 IATA: 2247
14.2 UN proper shipping name
ADR/RID: n-DECANE
IMDG: n-DECANE
IATA: n-Decane
14.3 Transport hazard class(es)
ADR/RID: 3 IMDG: 3 IATA: 3
14.4 Packaging group
ADR/RID: III IMDG: III IATA: III
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any
guarantee of the properties of the product. For lab use only!