## 1. Identification

**Product identifier**

CONOSTAN Flash Point 53°C Standard (ASTM D93)

| | |
|---|---|
| Substance name: | decane |
| CAS No: | 124-18-5 |

**Relevant identified uses of the substance or mixture and uses advised against**

**Use of the substance/mixture**

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**Details of the supplier of the safety data sheet**

**Details of the supplier of the safety data sheet**

| | |
|---|---|
| Company name: | AnalytiChem Services, Unipessoal, Lda |
| Street: | Rua de Júlio Dinis 676 7º |
| Place: | P-4050-320 Porto |
| Telephone: | +351 226002917 |
| E-mail: | info@analytichem.com |
| Contact person: | SDS service department |
| E-mail: | SDS@analytichem.com |
| Internet: | www.analytichem.com |
| Responsible Department: | SDS service department |

**Supplier or manufacturer details**

| | |
|---|---|
| Company name: | AnalytiChem Canada Inc.<br>Québec, CANADA |
| Street: | 21800 Clark Graham Ave |
| Place: | CDN-H9X 4B6 Baie-D'Urfé |
| Telephone: | +1 (800) 361-6820 Telefax: +1 (800) 253-5549 |
| E-mail: | info@analytichem.com |
| Contact person: | SDS service department |
| E-mail: | SDS@analytichem.com |
| Internet: | www.analytichem.com |
| Responsible Department: | AnalytiChem:<br>EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20<br>EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200<br>EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848<br>UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500<br>USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378<br>Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701<br>Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333 |

**Emergency telephone number:** +1 703-741-5970 (CHEMTREC)

**Further Information**

No data available

## 2. Hazard identification

**Classification of the substance or mixture**

**WHMIS 2015**

Flammable liquids: Flam. Liq. 3

Aspiration hazard: Asp. Tox. 1

**Label elements**

**WHMIS 2015**

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

**Precautionary statements**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Wear protective gloves/protective clothing and eye protection/face protection.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container to an appropriate recycling or disposal facility.

**Other hazards**

No data available

## 3. Composition/information on ingredients

**Substances**

Sum formula: $CH_3(CH_2)_8CH_3$

Molecular weight: 142.28 g/mol

**Relevant ingredients**

| CAS No | Chemical name | Quantity |
|---|---|---|
| 124-18-5 | decane | 80 - 100 % (*) |

(*) The actual concentration is withheld as a trade secret.

**Further Information**

No data available

## 4. First-aid measures

**Description of first aid measures**

**General information**

No data available

**After inhalation**

Provide fresh air.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Observe risk of aspiration if vomiting occurs.

Call a physician immediately.

**Most important symptoms and effects, whether acute or delayed**

Irritant
Cough
Dyspnoea
Headache
Gastrointestinal complaints
Unconsciousness
Inebriation
Anaesthetic state
Pulmonary oedema
Repeated exposure may cause skin dryness or cracking.

**Indication of immediate medical attention and special treatment needed**

Aspiration hazard

## 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**

Carbon dioxide ($CO_2$)
Foam
Extinguishing powder

**Unsuitable extinguishing media**

No data available

**Specific hazards arising from the hazardous product**

Combustible liquids
Hazardous combustion products
In case of fire may be liberated: Carbon dioxide ($CO_2$), Carbon monoxide
In case of warming:
Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Heating causes rise in pressure with risk of bursting.

**Special protective equipment and precautions for fire-fighters**

In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**General advice**

Keep away from sources of ignition - No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
Take action to prevent static discharges.

**For non-emergency personnel**

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**Environmental precautions**

Do not allow to enter into surface water or drains.
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion

**Methods and material for containment and cleaning up**

**For containment**

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed and suitable containers for disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Reference to other sections**

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

## 7. Handling and storage

**Precautions for safe handling**

**Advice on safe handling**

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Keep container tightly closed.
Use personal protection equipment. Use extractor hood (laboratory).
Do not breathe vapour/aerosol. Provide adequate ventilation.

**Advice on protection against fire and explosion**

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.
Wash hands and face before breaks and after work and take a shower if necessary.
When using do not eat or drink.
Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.
Store in a cool dry place.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Hints on joint storage**

Keep away from: Oxidising agent

**Further information on storage conditions**

Protect from sunlight.
storage temperature < +30°C

## 8. Exposure controls/Personal protection

**Control parameters**

**Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.
If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles
Face protection umbrella

**Hand protection**

Tested protective gloves must be worn
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear fire resistant or flame retardant clothing.
Take off immediately all contaminated clothing and wash it before reuse.

Wear suitable protective clothing. Take off immediately all contaminated clothing.
Wash hands and face before breaks and after work and take a shower if necessary.
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.
Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Danger of explosion

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

| | | |
|---|---|---|
| Physical state: | Liquid | |
| Colour: | colourless , clear | |
| Odour: | like: Hydrocarbons | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | 172 (342F) °C |
| Flammability: | | No data available |
| Lower explosive limits: | | No data available |
| Upper explosive limits: | | No data available |
| Flash point: | | No data available |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | No data available |
| pH-Value: | | No data available |
| Viscosity / kinematic: (at 40 °C) | | No data available |
| Water solubility: (at 25 °C) | | No data available |
| Solubility in other solvents | | |
| No data available | | |
| Dissolution rate: | | No data available |
| Partition coefficient n-octanol/water: | | No data available |
| Dispersion stability: | | No data available |
| Vapour pressure: (at 20 °C) | | No data available |
| Vapour pressure: | | No data available |
| Density: | | No data available |
| Relative density: | | No data available |
| Bulk density: | | No data available |
| Relative vapour density: | | No data available |
| Particle characteristics: | | No data available |

**Other information**

**Information with regard to physical hazard classes**

Explosive properties

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

| | |
|---|---|
| Sustained combustibility: | Sustained combustibility |
| Self-ignition temperature | |
| Solid: | No data available |
| Gas: | No data available |

Oxidizing properties

No data available

**Other safety characteristics**

| | |
|---|---|
| Evaporation rate: | No data available |
| Solvent separation test: | No data available |
| Solvent content: | No data available |
| Solid content: | No data available |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| | No data available |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

**Further Information**

No data available

## 10. Stability and reactivity

**Reactivity**

In case of warming:

Vapours may form explosive mixtures with air.

**Chemical stability**

The product is stable under storage at normal ambient temperatures.

**Possibility of hazardous reactions**

Oxidising agent

**Conditions to avoid**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Incompatible materials**

Plastic articles

**Hazardous decomposition products**

in case of fire, see:

SECTION 5: Firefighting measures

**Further information**

No data available

## 11. Toxicological information

**Information on toxicological effects**

**Toxicocinetics, metabolism and distribution**

No data available

**Acute toxicity**

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | |
|---|---|---|---|---|---|
| | Route of exposure | Dose | Species | Source | Method |
| 124-18-5 | decane | | | | |
| | oral | LD50 > 15000 mg/kg | Rat | Study report (1977) | OECD Guideline 423 |
| | dermal | LD50 > 5000 mg/kg | Rabbit | Study report (1993) | OECD Guideline 402 |

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitizing effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**Information on other hazards**

**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No data available

**Further information**

Irritant
Cough
Dyspnoea
Headache
Gastrointestinal complaints
Unconsciousness
Inebriation
Anaesthetic state
Pulmonary oedema
Repeated exposure may cause skin dryness or cracking.

## 12. Ecological information

**Persistence and degradability**

83.1 %; 28 d; aerob
OECD 301F
Readily biodegradable (according to OECD criteria).

**Bioaccumulative potential**

Bioaccumulative potential

**Mobility in soil**

No data available

**Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**Other adverse effects**

Avoid release to the environment.

**Further information**

Do not allow to enter into surface water or drains.

## 13. Disposal considerations

**Waste treatment methods**

**Disposal recommendations**

Send to a physico-chemical treatment facility under observation of official regulations.
Do not allow to enter into surface water or drains.
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

**Canadian TDG**

| | |
|---|---|
| **UN number:** | UN 2247 |
| **Proper shipping name:** | n-DECANE |
| **Hazard classes:** | 3 |
| **Packing group:** | III |
| Hazard label: | 3 |
| Limited quantity: | 5 L |

**Marine transport (IMDG)**

| | |
|---|---|
| **UN number or ID number:** | UN 2247 |
| **United Nations proper shipping name:** | n-DECANE |
| **Transport hazard class(es):** | 3 |
| **Packing group:** | III |
| Hazard label: | 3 |
| Special Provisions: | - |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| EmS: | F-E, S-E |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **UN number or ID number:** | UN 2247 |

| | |
|---|---|
| **United Nations proper shipping name:** | n-DECANE |
| **Transport hazard class(es):** | 3 |
| **Packing group:** | III |
| Hazard label: | 3 |
| Limited quantity Passenger: | 10 L |
| Passenger LQ: | Y344 |
| Excepted quantity: | E1 |
| IATA-packing instructions - Passenger: | 355 |
| IATA-max. quantity - Passenger: | 60 L |
| IATA-packing instructions - Cargo: | 366 |
| IATA-max. quantity - Cargo: | 220 L |

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

## 15. Regulatory information

**Canadian regulations**

## 16. Other information

**Changes**

This data sheet contains changes from the previous version in section(s): 3,5,9.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.
The receiver of our product is singularly responsible for adhering to existing laws and regulations.
Provide appropriate information, instructions and training to users