SAFETY DATA SHEET

n-Hexane (Commercial Grade)
Version 2.0  Revision Date 2015-08-28

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

Product information
Product Name: n-Hexane (Commercial Grade)
Material: 1112579, 1059122, 1105008, 1099663, 1093681, 1021833, 1021832, 1021834, 1021835

Use: Solvent

Company: Chevron Phillips Chemical Company LP
Specialty Chemicals
10001 Six Pines Drive
The Woodlands, TX 77380

Emergency telephone:
Health:
866.442.9628 (North America)
1.832.813.4984 (International)

Transport:
North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department: Product Safety and Toxicology Group
E-mail address: SDS@CPChem.com
Website: www.CPChem.com

SECTION 2: Hazards identification

Classification of the substance or mixture
This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Emergency Overview

Danger
Form: Liquid  Physical state: Liquid  Color: clear, bright
OSHA Hazards: Flammable Liquid, Moderate skin irritant, Moderate eye irritant, Carcinogen, Reproductive hazard, Mutagen, Target Organ Effects, Aspiration hazard

Classification: Flammable liquids, Category 2

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n-Hexane (Commercial Grade)

Skin irritation, Category 2
Eye irritation, Category 2B
Germ cell mutagenicity, Category 1B
Carcinogenicity, Category 1B
Reproductive toxicity, Category 2
Specific target organ systemic toxicity, single exposure,
Category 3, Central nervous system
Specific target organ systemic toxicity, repeated exposure,
Category 2, Nervous system
Aspiration hazard, Category 1

Labeling

Symbol(s):

Signal Word: Danger

Hazard Statements:
H225: Highly flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315 + H320: Causes skin and eye irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H351: Suspected of causing cancer.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to organs (Nervous system) through prolonged or repeated exposure.

Precautionary Statements:

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces.
- No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapor/spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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P308 + P313 IF exposed or concerned: Get medical advice/attention.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Carcinogenicity:

IARC
Group 2B: Possibly carcinogenic to humans
Hydrocarbons, C5 and higher, C5-6 rich  68476-50-6

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3: Composition/information on ingredients

Synonyms:
Commercial NC6
Commercial n-Hexane

Molecular formula: C6H14

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C5 and higher, C5-6 rich</td>
<td>68476-50-6</td>
<td>100</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>30 - 60</td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>107-83-5</td>
<td>10 - 30</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>96-14-0</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>96-37-7</td>
<td>5 - 10</td>
</tr>
<tr>
<td>2,2-Dimethylbutane</td>
<td>75-83-2</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General advice: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

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If inhaled: If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>(&lt; 0 , ^\circ C (&lt; 32 , ^\circ F)) Method: Tag closed cup</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>(62.8 - 71.1 , ^\circ C (145.0 - 160.0 , ^\circ F))</td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>High volume water jet.</td>
</tr>
<tr>
<td>Specific hazards during fire fighting</td>
<td>Do not allow run-off from fire fighting to enter drains or water courses.</td>
</tr>
<tr>
<td>Special protective equipment for fire-fighters</td>
<td>Wear self-contained breathing apparatus for firefighting if necessary.</td>
</tr>
<tr>
<td>Further information</td>
<td>Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.</td>
</tr>
<tr>
<td>Fire and explosion protection</td>
<td>Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon oxides.</td>
</tr>
</tbody>
</table>

SECTION 6: Accidental release measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to</td>
</tr>
</tbody>
</table>

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Environmental precautions:
Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up:
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage

Handling

Advice on safe handling:
Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may not by themselves be sufficient. Review all operations, which have the potential to generating and accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106 "Flammable and Combustible Liquids"; National Fire Protection Association (NFPA 77), "Recommended Practice on Static Electricity"; and/or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising Out of Static, Lightning, and stray Currents".

Advice on protection against fire and explosion:
Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers:
No smoking. 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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
## Sections 8: Exposure controls/personal protection

### Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>US Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C5 and higher, C5-6 rich</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>500 ppm, 2,000 mg/m³</td>
<td>(b),</td>
</tr>
<tr>
<td>n-hexane</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>400 ppm, 1,800 mg/m³</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>50 ppm,</td>
<td>BEI, Skin,</td>
</tr>
<tr>
<td>n-hexane</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>500 ppm, 1,800 mg/m³</td>
<td>(b),</td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm,</td>
<td></td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1,000 ppm,</td>
<td></td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm,</td>
<td></td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1,000 ppm,</td>
<td></td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm,</td>
<td></td>
</tr>
<tr>
<td>2,2-Dimethylbutane</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500 ppm,</td>
<td></td>
</tr>
<tr>
<td>2,2-Dimethylbutane</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1,000 ppm,</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>500 ppm, 1,800 mg/m³</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>OSHA Z-1</td>
<td>STEL</td>
<td>1,000 ppm, 3,600 mg/m³</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>ACGIH</td>
<td>STEL</td>
<td>1,000 ppm,</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>OSHA Z-1</td>
<td>TWA</td>
<td>500 ppm, 1,800 mg/m³</td>
<td></td>
</tr>
<tr>
<td>n-hexane</td>
<td>OSHA Z-1</td>
<td>STEL</td>
<td>1,000 ppm, 3,600 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

(b) The value in mg/m³ is approximate.

BEI: Substances for which there is a Biological Exposure Index or Indices (see BEI® section)

Skin: Danger of cutaneous absorption

### Immediately Dangerous to Life or Health Concentrations (IDLH)

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>Immediately Dangerous to Life or Health Concentration Value 1100 ppm</td>
<td>1995-03-01</td>
</tr>
</tbody>
</table>

### Biological exposure indices

#### US

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-Hexanediol: 0.4 mg/l (Urine)</td>
<td>End of shift at end of workweek</td>
<td>2007-01-01</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-Hexanediol: 0.4 mg/l (Urine)</td>
<td>End of shift at end of workweek</td>
<td>2000-06-28</td>
</tr>
</tbody>
</table>

### REG NA

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Update</th>
</tr>
</thead>
</table>

### REG WORLD

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Sampling time</th>
<th>Update</th>
</tr>
</thead>
</table>

### Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### Personal protective equipment

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n-Hexane (Commercial Grade)

Respiratory protection: Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection: The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Eye wash bottle with pure water. Tightly fitting safety goggles.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place. Wear as appropriate: Flame-resistant clothing. Workers should wear antistatic footwear.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>clear, bright</td>
</tr>
</tbody>
</table>

**Safety data**

- **Flash point**: < 0 °C (< 32 °F)  
  Method: Tag closed cup
- **Lower explosion limit**: No data available
- **Upper explosion limit**: No data available
- **Oxidizing properties**: no
- **Autoignition temperature**: 62.8 - 71.1 °C (145.0 - 160.0 °F)
- **Molecular formula**: C₆H₁₄
- **Molecular weight**: No data available
- **pH**: Not applicable
**n-Hexane (Commercial Grade)**

**SECTION 10: Stability and reactivity**

**Chemical stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Possibility of hazardous reactions**

**Conditions to avoid:** Heat, flames and sparks.

**Materials to avoid:** May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous decomposition products:** Carbon oxides

**Other data:** No decomposition if stored and applied as directed.

**SECTION 11: Toxicological information**

**n-Hexane (Commercial Grade)**

**Acute oral toxicity:** LD50: > 5 g/kg

**n-Hexane (Commercial Grade)**

**Acute inhalation toxicity:** LC50: > 20 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: Acute toxicity estimate
n-Hexane (Commercial Grade)

Acute dermal toxicity : LD50: > 2 g/kg

Skin irritation : Irritating to skin.

Eye irritation : May cause eye irritation.

Sensitization
n-hexane : Did not cause sensitization on laboratory animals.

Does not cause skin sensitization.

Repeated dose toxicity
n-hexane : Species: Rat, male
Sex: male
Application Route: Inhalation
Dose: 3,000 ppm
Exposure time: 16 wks
Number of exposures: 12 h/d
Lowest observable effect level: 3,000 ppm
Target Organs: Peripheral nervous system

Species: Mouse, female
Sex: female
Application Route: Inhalation
Dose: 500, 1,000, 4,000, 10,000 ppm
Exposure time: 13 wks
Number of exposures: 6h or 22h (1,000 ppm)/ 5d/wk
Lowest observable effect level: 500 ppm
Target Organs: Nose

Species: Mouse, male
Sex: male
Application Route: Inhalation
Dose: 500, 1,000, 4000, 10,000 ppm
Exposure time: 13 wks
Number of exposures: 6h or 22h (1,000 ppm)/d, 5d/wk
NOEL: 500 ppm
Lowest observable effect level: 1,000 ppm
Target Organs: Nose

Species: Rat, male
Sex: male
Application Route: oral gavage
Dose: 568, 1,135, 3,973 mg/kg bw/day
Exposure time: 90 or 120 days
Number of exposures: Daily or 5d/wk (120-d study)
NOEL: 568 mg/kg bw/day
Lowest observable effect level: 1135 mg/kg bw/day

Carcinogenicity
n-Hexane (Commercial Grade)

Species: Rat
Dose: 0.043, 900, 3,000, 9,016 ppm
Exposure time: 2 yrs
Number of exposures: 6 h/d, 5 d/wk
Remarks: No evidence of carcinogenicity

Species: Mouse
Dose: 0.039, 900, 3,000, 9,018 ppm
Exposure time: 2 yrs
Number of exposures: 6 h/d, 5 d/wk
Remarks: No evidence of carcinogenicity

Reproductive toxicity

Species: Rat
Sex: male
Application Route: Inhalation
Dose: 5,000 ppm
Number of exposures: 16 hr/d, 6 d/wk
Test period: 6 wks
Permanent testicular damage characterized by loss of germ-cell line

Developmental Toxicity

Species: Rat
Application Route: Inhalation
Dose: 200, 1,000, 5,000 ppm
Number of exposures: 20 hr/d, daily
Test period: GD 6-20
NOAEL Teratogenicity: 200 ppm
NOAEL Maternal: 200 ppm

Species: Mouse
Application Route: Inhalation
Dose: 200, 1,000, 5,000 ppm
Number of exposures: 20 hr/d, daily
Test period: GD 6-17
NOAEL Maternal: 1,000 ppm

n-Hexane (Commercial Grade)

Aspiration toxicity

May be fatal if swallowed and enters airways. Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.

CMR effects

Carcinogenicity: Possible human carcinogen
Mutagenicity: In vivo tests showed mutagenic effects

Carcinogenicity: Not classifiable as a human carcinogen.
Mutagenicity: Did not show mutagenic effects in animal experiments.
Teratogenicity: Suspected of damaging the unborn child.
Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
### n-Hexane (Commercial Grade)

**Further information:** Solvents may degrease the skin.

### SECTION 12: Ecological information

#### Toxicity to fish

<table>
<thead>
<tr>
<th>Compound</th>
<th>LL50 (mg/l)</th>
<th>Exposure time (h)</th>
<th>Species Description</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>12.51</td>
<td>96</td>
<td>Oncorhynchus mykiss (rainbow trout)</td>
<td>QSAR modeled data</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Toxicity to daphnia and other aquatic invertebrates

<table>
<thead>
<tr>
<th>Compound</th>
<th>EL50 (mg/l)</th>
<th>Exposure time (h)</th>
<th>Species Description</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>21.85</td>
<td>48</td>
<td>Daphnia magna (Water flea)</td>
<td>QSAR modeled data</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methylcyclopentane</td>
<td>No data available</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Toxicity to algae

<table>
<thead>
<tr>
<th>Compound</th>
<th>EL50 (mg/l)</th>
<th>Exposure time (h)</th>
<th>Species Description</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>9.29</td>
<td>72</td>
<td>Pseudokirchneriella subcapitata (green algae)</td>
<td>QSAR modeled data</td>
</tr>
</tbody>
</table>

**Elimination information (persistence and degradability)**

**Bioaccumulation**

<table>
<thead>
<tr>
<th>Compound</th>
<th>BCF</th>
<th>Does not significantly accumulate in organisms.</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>501</td>
<td></td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td></td>
<td>Does not significantly accumulate in organisms.</td>
</tr>
<tr>
<td>2,2-Dimethylbutane</td>
<td></td>
<td>Accumulation in aquatic organisms is unlikely.</td>
</tr>
</tbody>
</table>

**Biodegradability**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Biodegradability</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ecotoxicology Assessment**

**Acute aquatic toxicity**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Toxicity to aquatic life.</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td></td>
</tr>
</tbody>
</table>
## n-Hexane (Commercial Grade)

<table>
<thead>
<tr>
<th>Substance</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methylpentane</td>
<td>Toxic to aquatic life.</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>Toxic to aquatic life.</td>
</tr>
<tr>
<td>2,2-Dimethylbutane</td>
<td>Toxic to aquatic life.</td>
</tr>
<tr>
<td>n-hexane</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>2,2-Dimethylbutane</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

### Chronic aquatic toxicity
- n-hexane: Toxic to aquatic life with long lasting effects.
- 2-Methylpentane: Toxic to aquatic life with long lasting effects.
- 3-Methylpentane: Toxic to aquatic life with long lasting effects.
- 2,2-Dimethylbutane: Toxic to aquatic life with long lasting effects.

### Results of PBT assessment
- n-hexane: Non-classified vPvB substance, Non-classified PBT substance

### Additional ecological information
- An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

- **Product**: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
- **Contaminated packaging**: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

## SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.). Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

**US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**

UN1208, HEXANES, 3, II, RQ (HEXANE)

MSDS Number:100000014531 12/16
n-Hexane (Commercial Grade)

SECTION 15: Regulatory information

National legislation

**SARA 311/312 Hazards**

- Fire Hazard
- Acute Health Hazard
- Chronic Health Hazard

**CERCLA Reportable Quantity**

- Calculated RQ exceeds reasonably attainable upper limit.
- n-hexane

**SARA 302 Reportable Quantity**

- This material does not contain any components with a SARA 302 RQ.

**SARA 302 Threshold Planning Quantity**

- No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 304 Reportable Quantity**

- This material does not contain any components with a section 304 EHS RQ.
# SAFETY DATA SHEET

## n-Hexane (Commercial Grade)

**Version 2.0**

**Revision Date** 2015-08-28

| SARA 313 Ingredients |  
|----------------------|--------------------------------------------------------|
|                      | The following components are subject to reporting levels established by SARA Title III, Section 313: |
|                      | n-hexane - 110-54-3 |

**Clean Air Act**

**Ozone-Depletion Potential**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

- n-hexane - 110-54-3

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

**US State Regulations**

**Pennsylvania Right To Know**

- Hydrocarbons, C5 and higher, C5-6 rich - 68476-50-6
  - n-hexane - 110-54-3
  - 2-Methylpentane - 107-83-5
  - 3-Methylpentane - 96-14-0
  - Methylcyclopentane - 96-37-7
  - 2,2-Dimethylbutane - 75-83-2
  - Cyclohexane - 110-82-7

**New Jersey Right To Know**

- Hydrocarbons, C5 and higher, C5-6 rich - 68476-50-6
  - n-hexane - 110-54-3
  - 2-Methylpentane - 107-83-5
  - 3-Methylpentane - 96-14-0
  - Methylcyclopentane - 96-37-7
  - 2,2-Dimethylbutane - 75-83-2

**California Prop. 65 Ingredients**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**Notification status**

**Europe REACH**

Not in compliance with the inventory

MSDS Number:100000014531 14/16
n-Hexane (Commercial Grade)

SAFETY DATA SHEET

Version 2.0

Revision Date 2015-08-28

United States of America TSCA : On TSCA Inventory
Canada DSL : This product contains one or several components listed in the Canadian NDSL.
Australia AICS : On the inventory, or in compliance with the inventory
New Zealand NZIoC : Not in compliance with the inventory
Japan ENCS : Not in compliance with the inventory
Korea KECI : On the inventory, or in compliance with the inventory
Australia AICS : On the inventory, or in compliance with the inventory
New Zealand NZIoC : On the inventory, or in compliance with the inventory
Japan ENCS : On the inventory, or in compliance with the inventory
Korea KECI : On the inventory, or in compliance with the inventory

SECTION 16: Other information

NFPA Classification : Health Hazard: 2
Fire Hazard: 3
Reactivity Hazard: 0

Further information

Legacy SDS Number : CPC00475

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

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.

Key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemicals</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Chemicals</td>
</tr>
</tbody>
</table>

MSDS Number:100000014531
<table>
<thead>
<tr>
<th>Chemical Substances</th>
<th>Commercial Chemical Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAK Germany Maximum Concentration Values</td>
<td>PRNT Presumed Not Toxic</td>
</tr>
<tr>
<td>GHS Globally Harmonized System</td>
<td>RCRA Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>&gt;= Greater Than or Equal To</td>
<td>STEL Short-term Exposure Limit</td>
</tr>
<tr>
<td>IC50 Inhibition Concentration 50%</td>
<td>SARA Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>IARC International Agency for Research on Cancer</td>
<td>TLV Threshold Limit Value</td>
</tr>
<tr>
<td>IECSC Inventory of Existing Chemical Substances in China</td>
<td>TWA Time Weighted Average</td>
</tr>
<tr>
<td>ENCS Japan, Inventory of Existing and New Chemical Substances</td>
<td>TSCA Toxic Substance Control Act</td>
</tr>
<tr>
<td>KECI Korea, Existing Chemical Inventory</td>
<td>UVCB Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>&lt;= Less Than or Equal To</td>
<td>WHMIS Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>LC50 Lethal Concentration 50%</td>
<td></td>
</tr>
</tbody>
</table>