n-Hexane 95%

Version 2.6

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

Product information

Product Name: n-Hexane 95%

Material: 1030462, 1089438, 1089437, 1089439, 1089436, 1096670, 1092233, 1024843, 1024844, 1104994

EC-No. Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Legal Entity Registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>203-777-6</td>
<td>01-2119480412-44-xxxx</td>
</tr>
<tr>
<td></td>
<td>203-777-6</td>
<td>601-037-00-0</td>
<td></td>
</tr>
</tbody>
</table>

Relevant Identified Uses: Manufacture

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

Local: Chevron Phillips Chemicals International N.V.
Airport Plaza (Stockholm Building)
Leonardo Da Vinci, 19
1831 Diegem
Belgium

SDS Requests: (800) 852-5530
Technical Information: (832) 813-4862
Responsible Party: Product Safety Group
Email: sds@cpchem.com

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)

Transport:
CHEMTREC 800.424.9300 or 703.527.3887 (int'l)
Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316

SDS Number: 100000000434
n-Hexane 95%

SECTION 2: Hazards identification

Classification of the substance or mixture
REGULATION (EC) No 1272/2008

- Flammable liquids, Category 2
  H225: Highly flammable liquid and vapor.
- Skin irritation, Category 2
  H315: Causes skin irritation.
- Reproductive toxicity, Category 2
  H361: Suspected of damaging fertility or the unborn child.
- Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system
  H335: May cause respiratory irritation.
- Specific target organ systemic toxicity - repeated exposure, Category 2
  H336: May cause drowsiness or dizziness.
- Aspiration hazard, Category 1
  H304: May be fatal if swallowed and enters airways.
- Chronic aquatic toxicity, Category 2
  H411: Toxic to aquatic life with long lasting effects.

Label elements
Labeling (REGULATION (EC) No 1272/2008)

- Hazard pictograms:
  ![Flammable Liquid](image1) ![Skin Irritation](image2) ![Respiratory Irritation](image3) ![Drowsiness/Dizziness](image4) ![Damage to Organs](image5)

- Signal Word: Danger

- Hazard Statements:
  - H225: Highly flammable liquid and vapor.
  - H304: May be fatal if swallowed and enters airways.
  - H315: Causes skin irritation.
  - H335: May cause respiratory irritation.
  - H336: May cause drowsiness or dizziness.
  - H361: Suspected of damaging fertility or the unborn child.
  - H373: May cause damage to organs through prolonged or repeated exposure.
  - H411: Toxic to aquatic life with long lasting effects.

- Precautionary Statements:
  - Prevention:
    - P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
    - P260: Do not breathe dust/fume/gas/mist/vapor/spray.
P281 Use personal protective equipment as required.

**Response:**
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Hazardous ingredients which must be listed on the label:
- 110-54-3 n-hexane

### SECTION 3: Composition/information on ingredients

**Molecular formula:** C6H14

**Mixtures**

**Hazardous ingredients**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No. Index No.</th>
<th>Classification (REGULATION (EC) No 1272/2008)</th>
<th>Concentration [wt%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3 203-777-6 601-037-00-0</td>
<td>Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H361fd STOT SE 3; H336 STOT RE 2; H373 Asp. Tox. 1; H304 Aquatic Chronic 2; H411</td>
<td>95</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 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.

**If inhaled:** Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

**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. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
n-Hexane 95%

SECTION 5: Firefighting measures

Flash point: -23 °C (-9 °F)
Method: Tag closed cup

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media: High volume water jet.

Specific hazards during fire fighting: Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: 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.

Fire and explosion protection: 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.

SECTION 6: Accidental release measures

Personal precautions: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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.
n-Hexane 95%

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".

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. Take precautionary measures against static discharges. 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.

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.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>SK</th>
<th>Ľahkotvornost</th>
<th>NPEL priemerný</th>
<th>Příspěvek</th>
<th>OPEL kratkodobý</th>
<th>Připomnění</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>SK OEL</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SK OEL</td>
<td>40 ppm, 140 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EU, BAT, RF3

Bioškoda mejna vrednost - določena je bioškoda mejna vrednost, ki pomeni opozorilno raven nevarne kemične snovi in njenih metabolitov v tkivih, telesnih tekočinah ali izdizanem zraku, ne glede na to, ali je nevarna kemična snov vnesena v organizem z vdihavanjem, zažiti ali skozi kožo.


Teratogeno RF3 - lahko škoduje plodnosti. Številke 1, 2 in 3 pomenijo skupino rakotvornosti ali mutagenosti po EU razvrstitvi
**n-Hexane 95%**

**SAFETY DATA SHEET**

**Version 2.6**

**Revision Date 2016-05-16**

**Bestandsdeler**

<table>
<thead>
<tr>
<th>Grundval</th>
<th>Värde</th>
<th>Kontrollparametrar</th>
<th>Anmärkning</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>SE AFS</td>
<td>NGV</td>
<td>25 ppm, 80 mg/m³</td>
</tr>
<tr>
<td></td>
<td>SE AFS</td>
<td>KTV</td>
<td>50 ppm, 180 mg/m³</td>
</tr>
</tbody>
</table>

**SE**

**Component**

<table>
<thead>
<tr>
<th>Bazá</th>
<th>Valoare</th>
<th>Parametri de control</th>
<th>Notá</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>RO OEL</td>
<td>TWA</td>
<td>20 ppm, 170 mg/m³</td>
</tr>
</tbody>
</table>

**RO**

**Componentes**

<table>
<thead>
<tr>
<th>Bázás</th>
<th>Valor</th>
<th>Parámetros de controlo</th>
<th>Notá</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>PT OEL</td>
<td>VLE-MP</td>
<td>50 ppm,</td>
</tr>
<tr>
<td></td>
<td>PT DL 305/2007</td>
<td>oito horas</td>
<td>20 ppm, 72 mg/m³</td>
</tr>
</tbody>
</table>

**PT**

<table>
<thead>
<tr>
<th>Składniki</th>
<th>Podstawa</th>
<th>Wartość</th>
<th>Parametry dotyczące kontroli</th>
<th>Uwaga</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>PL NDS</td>
<td>NDS</td>
<td>72 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**PL**

<table>
<thead>
<tr>
<th>Komponenter</th>
<th>Grundlag</th>
<th>Verdi</th>
<th>Kontrollparametere</th>
<th>Notá</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>FOR-2011-12-06-1358</td>
<td>TWA</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1), P, IBE, afeção do SNC,</td>
<td></td>
</tr>
</tbody>
</table>

**NO**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Verdi</th>
<th>Kontrol parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>MT OEL</td>
<td>TWA</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**NL**

<table>
<thead>
<tr>
<th>Bestanddelen</th>
<th>Basis</th>
<th>Waarde</th>
<th>Controleparameters</th>
<th>Opmerking</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>NL WG</td>
<td>TGG-8 uur</td>
<td>72 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NL WG</td>
<td>TGG-15 min</td>
<td>144 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**MT**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>MT OEL</td>
<td>TWA</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**LV**

<table>
<thead>
<tr>
<th>Sastāvdaļas</th>
<th>Bāze</th>
<th>Vērtība</th>
<th>Pārvaldības parametri</th>
<th>Piezīme</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>LV OEL</td>
<td>AER 8 st</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**IE**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>IE OEL</td>
<td>OELV - 8 hrs (TWA)</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**IOELV** - Indicative Occupational Exposure Limit Value

**HU**

<table>
<thead>
<tr>
<th>Komponensek</th>
<th>Bázis</th>
<th>Érték</th>
<th>Ellenőrzési paraméterek</th>
<th>Megjegyzés</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>HU OEL</td>
<td>AK-érték</td>
<td>72 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HU OEL</td>
<td>CK-érték</td>
<td>288 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

b Bőrön át is felszívódik. Az AK-értékek a veszélyes anyagoknak ezt a tulajdonságát, illetve az ebből származó expozícióit csak a levegőben megengedett koncentrációjuk mértékének megfelelően veszik figyelembe

EU2 96/94/EK irányelvben közölt érték

**GR**

<table>
<thead>
<tr>
<th>Συστατικά</th>
<th>Βάση</th>
<th>Τμή</th>
<th>Παράμετροι ελέγχου</th>
<th>Σημείωση</th>
</tr>
</thead>
</table>

SDS Number:100000000434 6/24
<table>
<thead>
<tr>
<th>n-Hexane 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Version 2.6</strong></td>
</tr>
<tr>
<td><strong>Revision Date 2016-05-16</strong></td>
</tr>
</tbody>
</table>

### GB

**Ingredients**

<table>
<thead>
<tr>
<th>Item</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>GB EH40</td>
<td>TWA</td>
<td>20 ppm, 72 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

2. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

### FR

**Composants**

<table>
<thead>
<tr>
<th>Item</th>
<th>Base</th>
<th>Valeur</th>
<th>Paramètres de contrôle</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>FRI VLE</td>
<td>VME</td>
<td>20 ppm, 72 mg/m³</td>
<td>R2, noir,</td>
</tr>
</tbody>
</table>

noir Valeurs limites réglementaires contraignantes

R2 Substances préoccupantes en raison d’effets toxiques pour la reproduction possibles

### FI

**Aineosat**

<table>
<thead>
<tr>
<th>Item</th>
<th>Peruste</th>
<th>Arvo</th>
<th>Valvonta koskevat muuttujat</th>
<th>Huomautus</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>FI OEL</td>
<td>HTP-arvot 8h</td>
<td>20 ppm, 72 mg/m³</td>
<td>iho.</td>
</tr>
</tbody>
</table>

Iho: Ihon läpi imeyttyvien aineiden elimistöön joutuvia määriä ja elimistöön joutuneesta aineesta aiheutuvaa vaaraa ei voida näin ollen arvioida pehkeistä ilmapiiesuunnan avulla. Tämän vuoksi näiden aineiden HTP-arvojen yhteyteen on huomautussarakkeeseen otettu iho läpi imeytymisen osittamiseksi merkintä "iho". Monet aineet, varsinkin voimakkaita hapoita ja emäkeitä, voivat aiheuttaa iholle jouduttuaan ihon ärsyntymistä tai syöpymistä.

### ES

**Componentes**

<table>
<thead>
<tr>
<th>Item</th>
<th>Base</th>
<th>Valor</th>
<th>Parámetros de control</th>
<th>Nota</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>ES VLA</td>
<td>VLA-ED</td>
<td>20 ppm, 72 mg/m³</td>
<td>VLB®, VLI,</td>
</tr>
</tbody>
</table>

VLB® Agente químico que tiene Valor Límite Biológico específico en este documento.

VL1 Agente químico para el que la U.E. estableció un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C, Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país.

### EE

**Komponentid, osad**

<table>
<thead>
<tr>
<th>Item</th>
<th>Alused</th>
<th>Välartus</th>
<th>Kontrollparametrid</th>
<th>Määrused</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>EE OEL</td>
<td>Pinnorm</td>
<td>20 ppm, 72 mg/m³</td>
<td>/</td>
</tr>
</tbody>
</table>

### DK

**Komponenter, osad**

<table>
<thead>
<tr>
<th>Item</th>
<th>Basis</th>
<th>Værdi</th>
<th>Kontrolparametre</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>DK OEL</td>
<td>GV</td>
<td>20 ppm, 72 mg/m³</td>
<td>E,</td>
</tr>
</tbody>
</table>

E At stoffet har en EF-grænseværdi.

### DE

**Inhaltsstoffe**

<table>
<thead>
<tr>
<th>Item</th>
<th>Grundlage</th>
<th>Wert</th>
<th>Zu überwachende Parameter</th>
<th>Bemerkung</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>DE TRGS 900</td>
<td>AGW</td>
<td>50 ppm, 160 mg/m³</td>
<td>DFG, EU, Y,</td>
</tr>
</tbody>
</table>

DFG Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission)

EU Europäische Union (Von der EU wurde ein Luftgrenzwert festgelegt: Abweichungen bei Wert und Spitzenbegrenzung sind möglich.)

Y Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden.

### CZ

**Složky**

<table>
<thead>
<tr>
<th>Item</th>
<th>Základ</th>
<th>Hodnota</th>
<th>Kontrolní parametry</th>
<th>Poznámka</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>CZ OEL</td>
<td>PEL</td>
<td>70 mg/m³</td>
<td>I, D, P,</td>
</tr>
<tr>
<td>n-hexane</td>
<td>CZ OEL</td>
<td>NPK-P</td>
<td>200 mg/m³</td>
<td>I, D, P,</td>
</tr>
</tbody>
</table>

D Při expoziči se významně uplatňuje pronikání látky kůži

I dráždí silně i utěrky (oči, dýchací cesty) resp. kůži

P U látky nete vyloučit závažné pozdní účinky

### CY

**Συστατικά**

<table>
<thead>
<tr>
<th>Item</th>
<th>Βάση</th>
<th>Τιμή</th>
<th>Περιόμετρα ελέγχου</th>
<th>Σημείωση</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>CY OEL</td>
<td>TWA</td>
<td>20 ppm, 72 mg/m³</td>
<td>/</td>
</tr>
</tbody>
</table>

### CH

**Inhaltsstoffe**

<table>
<thead>
<tr>
<th>Item</th>
<th>Grundlage</th>
<th>Wert</th>
<th>Zu überwachende Parameter</th>
<th>Bemerkung</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>CH SUVA</td>
<td>MAK-Wert</td>
<td>50 ppm, 160 mg/m³</td>
<td>H, RF3, NIOSH, SSc,</td>
</tr>
<tr>
<td>n-hexane</td>
<td>CH SUVA</td>
<td>K2GW</td>
<td>400 ppm, 1,440 mg/m³</td>
<td>H, RF3, NIOSH, SSc,</td>
</tr>
</tbody>
</table>

H Vergiftung durch Hautresorption möglich; Bei Stoffen, welche die Haut leicht zu durchdringen vermögen, kann durch die zusätzliche Hautresorption die innere Belastung wesentlich höher werden als bei alleiniger Aufnahme durch die Atemwege.

NIOSH National Institute for Occupational Safety and Health

RF3 Umfasset Stoffe, die wegen möglicher Beeinträchtigung der Fortpflanzungsfähigkeit (Fruchtbarkeit) des Menschen zur Besorgnis Anlass geben.

SSc Eine Schädigung der Leibesfrucht braucht bei Einhaltung des MAK-Wertes nicht befürchtet zu werden.

### BG

**Съставки**

<table>
<thead>
<tr>
<th>Item</th>
<th>Основа</th>
<th>Стойност</th>
<th>Параметри на контрол</th>
<th>Бележка</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>BG OEL</td>
<td>TWA</td>
<td>20 ppm, 72 mg/m³</td>
<td>/</td>
</tr>
</tbody>
</table>

SDS Number:100000000434 7/24
**n-Hexane 95%**

**Version 2.6**

**BE**

<table>
<thead>
<tr>
<th>Bestanddenlen</th>
<th>Basis</th>
<th>Waarde</th>
<th>Controleparameters</th>
<th>Opmerking</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>BE OEL</td>
<td>TGG 8 hr</td>
<td>20 ppm, 72 mg/m³</td>
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</table>

**AT**

<table>
<thead>
<tr>
<th>Inhaltsstoffe</th>
<th>Grundlage</th>
<th>Wert</th>
<th>Zu überwachende Parameter</th>
<th>Bemerkung</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>AT OEL</td>
<td>TMW</td>
<td>20 ppm, 72 mg/m³</td>
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</tr>
<tr>
<td></td>
<td>AT OEL</td>
<td>K2W</td>
<td>80 ppm, 288 mg/m³</td>
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</table>

**Biological exposure indices**

**SK**

<table>
<thead>
<tr>
<th>Názov látky</th>
<th>Č. CAS</th>
<th>Kontrolné parametre</th>
<th>Doba odboru vzorky</th>
<th>Aktualizácia</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-hexándion a 4,5-dihydroxy-2-hexanón:</td>
<td>koniec vystavenia alebo pracovnej zmeny</td>
<td>2011-11-23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/l (moč)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,5-hexándion a 4,5-dihydroxy-2-hexanón:</td>
<td>koniec vystavenia alebo pracovnej zmeny</td>
<td>2011-11-23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 µmol/l-1 (moč)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,5-hexándion a 4,5-dihydroxy-2-hexanón:</td>
<td>koniec vystavenia alebo pracovnej zmeny</td>
<td>2011-11-23</td>
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<tr>
<td></td>
<td></td>
<td>3 mg/g kreatinín (moč)</td>
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<tr>
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<td>2,5-hexándion a 4,5-dihydroxy-2-hexanón:</td>
<td>koniec vystavenia alebo pracovnej zmeny</td>
<td>2011-11-23</td>
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<td>1.4 µmol/mmol kreatinín (moč)</td>
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**SL**

<table>
<thead>
<tr>
<th>Ime snovi</th>
<th>Št. CAS</th>
<th>Parametri nadzora</th>
<th>Čas vzorčenja</th>
<th>Sprememba</th>
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</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-heksandion:</td>
<td>Ob koncu delovne izmene</td>
<td>2001-12-11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.25 mmol/mol kreatinín (Urin)</td>
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<td>2-heksanol:</td>
<td>Ob koncu delovne izmene</td>
<td>2001-12-11</td>
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<td>0.22 mmol/mol kreatinín (Urin)</td>
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<td>n-heksan:</td>
<td>V času izpostavljenosti</td>
<td>2001-12-11</td>
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<td></td>
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<td>1.74 µmol/l (Kri)</td>
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<td>n-heksan:</td>
<td>V času izpostavljenosti</td>
<td>2001-12-11</td>
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<td></td>
<td>1.66 µmol/l (Žadnji izdihani zrak)</td>
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<tr>
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<td>n-heksan:</td>
<td>Ob koncu delovne izmene</td>
<td>2001-12-11</td>
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<td>5.3 mg/g kreatinín (Urin)</td>
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<td>2-heksanol:</td>
<td>Ob koncu delovne izmene</td>
<td>2001-12-11</td>
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<tr>
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<td>0.2 mg/g kreatinín (Urin)</td>
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<td>n-heksan:</td>
<td>V času izpostavljenosti</td>
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<tr>
<td></td>
<td></td>
<td>40 ppm (Žadnji izdihani zrak)</td>
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<td>n-heksan:</td>
<td>V času izpostavljenosti</td>
<td>2001-12-11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 µg/l (Kri)</td>
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**RO**

<table>
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<tr>
<th>Numele substanţei</th>
<th>Nr. CAS</th>
<th>Parametri de control</th>
<th>Timp de prelevare a probei</th>
<th>Adus la zi</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2.5 hexandionă:</td>
<td>Sfârşit schimb</td>
<td>2002-11-25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/g creatinină (Urină)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HU**

<table>
<thead>
<tr>
<th>Az anyag megnevezése</th>
<th>CAS szám</th>
<th>Ellenőrzési paraméterek</th>
<th>Mintavétel időpontja</th>
<th>Aktualizálás</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2.5-hexan-dion:</td>
<td>műszak után</td>
<td>2002-11-28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.5 mg/g kreatinín (hügyhólyag)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.5-hexan-dion:</td>
<td>műszak után</td>
<td>2002-11-28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.5 mikromol/mmol kreatin (kerekített értékek) (hügyhólyag)</td>
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</table>

**ES**

<table>
<thead>
<tr>
<th>Nombre de la sustancia</th>
<th>No. CAS</th>
<th>Paràmetros de control</th>
<th>Hora de muestreo</th>
<th>Puesto al día</th>
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</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
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</table>
n-Hexane 95%

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<table>
<thead>
<tr>
<th>Stoffname</th>
<th>CAS-Nr.</th>
<th>Zu überwachende Parameter</th>
<th>Probennahmezeitpunkt</th>
<th>Stand</th>
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</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-hexandion: 0,4 mg/l</td>
<td>final de la semana laboral</td>
<td>2011-03-03</td>
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</tbody>
</table>

DE

<table>
<thead>
<tr>
<th>Stoffname</th>
<th>CAS-Nr.</th>
<th>Zu überwachende Parameter</th>
<th>Probennahmezeitpunkt</th>
<th>Stand</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon: 5 mg/l (Urin)</td>
<td>Expositionsende, bzw. Schichtende</td>
<td>2013-09-19</td>
</tr>
</tbody>
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CH

<table>
<thead>
<tr>
<th>Stoffname</th>
<th>CAS-Nr.</th>
<th>Zu überwachende Parameter</th>
<th>Probennahmezeitpunkt</th>
<th>Stand</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>2,5-Hexandion plus 4,5-Dihydroxy-2-hexanon: 5 mg/l (Urin)</td>
<td>Expositionsende, bzw. Schichtende</td>
<td>2005-01-01</td>
</tr>
</tbody>
</table>

**DNEL**
End Use: Workers
Routes of exposure: Inhalation
Potential health effects: Chronic effects, Systemic effects
Value: 75 mg/m³

**DNEL**
Routes of exposure: Skin contact
Potential health effects: Chronic effects, Systemic effects
Value: 11 mg/kg

**PNEC**
Fresh water
Value: 0,086 mg/l

**PNEC**
Sea water
Value: 0,086 mg/l

**PNEC**
Fresh water sediment
Value: 1,0 mg/kg

**PNEC**
Sea sediment
Value: 1,0 mg/kg

**PNEC**
Soil
Value: 0,44 mg/kg

**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 work place 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**

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 retardant antistatic protective 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.

For additional details, see the Exposure Scenario in the Annex portion

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance:
Form: Liquid
Physical state: Liquid
Color: Colorless
Odor: Mild, Hydrocarbon

Safety data:
Flash point: -23 °C (-9 °F)
Method: Tag closed cup
Lower explosion limit: 1,1 %(V)
Upper explosion limit: 7,7 %(V)
Molecular formula: C6H14
Molecular weight: 86,2 g/mol
Boiling point/boiling range: 67 °C (153 °F)
Density: 660 - 680 g/l
at 15 °C (59 °F)
n-Hexane 95%

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

SECTION 11: Toxicological information

Acute inhalation toxicity
n-hexane: LC50: 73680 ppm
   Exposure time: 4 h
   Species: Rat
   Sex: male

Acute dermal toxicity
n-hexane: LD50: > 3.350 mg/kg
   Species: Rabbit
   Sex: male and female

n-Hexane 95%
Skin irritation: May cause skin irritation in susceptible persons.

n-Hexane 95%
Eye irritation: Vapors may cause irritation to the eyes, respiratory system and the skin.

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
n-Hexane 95%

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 : 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

n-hexane : 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

n-hexane : Species: Rat
Application Route: Inhalation
Dose: 200, 1,000, 5,000 ppm
**SAFETY DATA SHEET**

**n-Hexane 95%**

**Version 2.6**

**Revision Date 2016-05-16**

<table>
<thead>
<tr>
<th>Number of exposures: 20 hr/d, daily</th>
<th>Test period: GD 6-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAEL Teratogenicity: 200 ppm</td>
<td>NOAEL Maternal: 200 ppm</td>
</tr>
</tbody>
</table>

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

### Aspiration toxicity

n-hexane : May be fatal if swallowed and enters airways.

### CMR effects

n-hexane : 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 95%

### Further information

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

### SECTION 12: Ecological information

#### Toxicity to fish

n-hexane : LL50: 12.51 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
Method: QSAR modeled data

#### Toxicity to daphnia and other aquatic invertebrates

n-hexane : EL50: 21.85 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Method: QSAR modeled data

#### Toxicity to algae

n-hexane : EL50: 9.29 mg/l
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: QSAR modeled data
### Bioaccumulation

**n-hexane**

- Bioconcentration factor (BCF): 501
  - Does not significantly accumulate in organisms.

### Biodegradability

**n-hexane**

- This material is expected to be readily biodegradable.

### Ecotoxicology Assessment

#### Acute aquatic toxicity

**n-hexane**

- Toxic to aquatic life.

#### Chronic aquatic toxicity

**n-hexane**

- 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.

For additional details, see the Exposure Scenario in the Annex portion

### 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, MARINE POLLUTANT, (HEXANE), RQ (HEXANE)

**IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)**
UN1208, HEXANES, 3, II, (-23 °C), MARINE POLLUTANT, (HEXANE)

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**
UN1208, HEXANES, 3, II

**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**
UN1208, HEXANES, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS, (HEXANE)

**RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))**
UN1208, HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS, (HEXANE)

**ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)**
UN1208, HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS, (HEXANE)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

**SECTION 15: Regulatory information**

**National legislation**

**Chemical Safety Assessment**

**Ingredients**: n-hexane  
A Chemical Safety Assessment has been carried out for this substance. 203-777-6

**Major Accident Hazard Legislation**

96/82/EC  Update: 2003
Highly flammable
7b
Quantity 1: 5.000 t
Quantity 2: 50.000 t

96/82/EC  Update: 2003
Dangerous for the environment
9b
Quantity 1: 200 t
Quantity 2: 500 t

SDS Number:100000000434 15/24
n-Hexane 95%

Notification status

Europe REACH : On the inventory, or in compliance with the inventory
United States of America TSCA : On the inventory, or in compliance with the inventory
Canada DSL : 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
Philippines PICCS : On the inventory, or in compliance with the inventory
China IECSC : 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

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>Acronym</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
<td>LD50 Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
<td>LOAEL Lowest Observed Adverse Effect Level</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
<td>NFPA National Fire Protection Agency</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
<td>NIOSH National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
<td>NTP National Toxicology Program</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
<td>NZIoC New Zealand Inventory of Chemicals</td>
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<tr>
<td>EC50</td>
<td>Effective Concentration</td>
<td>NOAEL No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>EC5050</td>
<td>Effective Concentration 50%</td>
<td>NOEC No Observed Effect Concentration</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
<td>OSHA Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
<td>PEL Permissible Exposure Limit</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
<td>PICCS Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>MAK Germany Maximum Concentration Values</td>
<td>GHS</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Full text of H-Statements referred to under sections 2 and 3.**

- **H225** Highly flammable liquid and vapor.
- **H304** May be fatal if swallowed and enters airways.
- **H315** Causes skin irritation.
- **H335** May cause respiratory irritation.
- **H336** May cause drowsiness or dizziness.
- **H361** Suspected of damaging fertility or the unborn child.
- **H361fd** Suspected of damaging fertility. Suspected of damaging the unborn child.
- **H373** May cause damage to organs through prolonged or repeated exposure.
- **H411** Toxic to aquatic life with long lasting effects.
1. Short title of Exposure Scenario: **Manufacture**

**Main User Groups**
- **SU 3:** Industrial uses: Uses of substances as such or in preparations at industrial sites

**Sector of use**
- **SU3, SU8, SU9:** Industrial Manufacturing (all), Manufacture of bulk, large scale chemicals (including petroleum products), Manufacture of fine chemicals

**Process category**
- **PROC1:** Use in closed process, no likelihood of exposure
- **PROC2:** Use in closed, continuous process with occasional controlled exposure
- **PROC3:** Use in closed batch process (synthesis or formulation)
- **PROC4:** Use in batch and other process (synthesis) where opportunity for exposure arises
- **PROC8a:** Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
- **PROC8b:** Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
- **PROC15:** Use as laboratory reagent

**Environmental release category**
- **ERC1, ERC4:** Manufacture of substances, Industrial use of processing aids in processes and products, not becoming part of articles

**Further information**
- Manufacture of the substance or use as a process chemical or extraction agent. Includes recycling/recovery, material transfers, storage, maintenance and loading (including marine vessel/barge, road/rail car and bulk container), sampling and associated laboratory activities

2.1 Contributing scenario controlling environmental exposure for: **ERC1, ERC4:** Manufacture of substances, Industrial use of processing aids in processes and products, not becoming part of articles

**Product characteristics**
- **Viscosity, kinematic**: > 0,47 mm²/s at 20 °C
- **(Msafe)**: 2.100 tonnes/day

**Environment factors not influenced by risk management**
- **Flow rate**: 18.000 m³/d
- **Dilution Factor (River)**: 10
- **Dilution Factor (Coastal Areas)**: 100

**Other given operational conditions affecting environmental exposure**
- **Continuous use/release**
- **Number of emission days per year**: 300
- **Emission or Release Factor: Air**: 5 %
- **Emission or Release Factor: Water**: 0,03 %
- **Emission or Release Factor: Soil**: 0,01 %
### Technical conditions and measures / Organizational measures

**Air**
- Treat air emission to provide a typical removal efficiency of (%): (Effectiveness: 90 %)

**Water**
- Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of ≥ (%): (Effectiveness: 0 %)
- If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of ≥ (%): (Effectiveness: 0 %)

**Remarks**
- Common practices vary across sites thus conservative process release estimates used.
- Risk from environmental exposure is driven by freshwater sediment.
- Do not apply industrial sludge to natural soils.
- Sludge should be incinerated, contained or reclaimed.
- No wastewater treatment required.

### Conditions and measures related to municipal sewage treatment plant

- **Flow rate of sewage treatment plant effluent**: 10.000 m³/d
- **Effectiveness (of a measure)**: 96 %
- **Percentage removed from wastewater**: 96 %
- **Remarks**: Not applicable as there is no release to wastewater.

### Conditions and measures related to external treatment of waste for disposal

- **Waste treatment**: During manufacturing no waste of the substance is generated.

### Conditions and measures related to external recovery of waste

- **Recovery Methods**: During manufacturing no waste of the substance is generated.

### 2.2 Contributing scenario controlling worker exposure for: PROC1: Use in closed process, no likelihood of exposure

#### Product characteristics
- **Physical Form (at time of use)**: Liquid substance
- **Vapor pressure**: > 20 kPa

#### Amount used
- **Remarks**: No limit

#### Frequency and duration of use
- **Remarks**: Covers daily exposures up to 8 hours (unless stated differently)

#### Other operational conditions affecting workers exposure
- **Outdoor / Indoor**: Outdoor
- **Remarks**: Assumes a good basic standard of occupational hygiene is implemented., Assumes use at not more than 20°C above ambient temperature, unless stated differently.

#### Organizational measures to prevent /limit releases, dispersion and exposure
- No specific measures identified.

### 2.2 Contributing scenario controlling worker exposure for: PROC2: Use in closed, continuous process with occasional controlled exposure
### Product characteristics
- **Physical Form (at time of use):** Liquid substance
- **Vapor pressure:** > 20 kPa

### Amount used
- **Remarks:** No limit

### Frequency and duration of use
- **Remarks:** Covers daily exposures up to 8 hours (unless stated differently)

### Other operational conditions affecting workers exposure
- **Outdoor / Indoor:** Outdoor
- **Remarks:** Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical conditions and measures
- Handle substance within a closed system.
- Provide extract ventilation to material transfer points and other openings.

#### 2.2 Contributing scenario controlling worker exposure for: PROC3, PROC4: Use in closed batch process (synthesis or formulation), Use in batch and other process (synthesis) where opportunity for exposure arises

### Product characteristics
- **Physical Form (at time of use):** Liquid substance
- **Vapor pressure:** > 20 kPa

### Amount used
- **Remarks:** No limit

### Frequency and duration of use
- **Remarks:** Covers daily exposures up to 8 hours (unless stated differently)

### Other operational conditions affecting workers exposure
- **Outdoor / Indoor:** Indoor, Outdoor
- **Remarks:** Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical conditions and measures
- Ensure material transfers are under containment or extract ventilation.

#### 2.2 Contributing scenario controlling worker exposure for: PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

### Product characteristics
- **Physical Form (at time of use):** Liquid substance
- **Vapor pressure:** > 20 kPa

### Amount used
- **Remarks:** No limit
## n-Hexane 95%

**SAFETY DATA SHEET**

**Version 2.6**

**Revision Date** 2016-05-16

### Frequency and duration of use

Remarks: Covers daily exposures up to 8 hours (unless stated differently)

### Other operational conditions affecting workers exposure

Remarks: Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical conditions and measures

Provide enhanced general ventilation by mechanical means.

Drain down and flush system prior to equipment opening or maintenance.

### 2.2 Contributing scenario controlling worker exposure for: PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

### Product characteristics

<table>
<thead>
<tr>
<th>Physical Form (at time of use)</th>
<th>Liquid substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor pressure</td>
<td>&gt; 20 kPa</td>
</tr>
</tbody>
</table>

### Amount used

Remarks: No limit

### Frequency and duration of use

Remarks: Covers daily exposures up to 8 hours (unless stated differently)

### Other operational conditions affecting workers exposure

**Outdoor / Indoor** Indoor, Outdoor

Remarks: Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.

### Technical conditions and measures

Provide extraction ventilation at points where emissions occur.

Ensure material transfers are under containment or extract ventilation.

### 2.2 Contributing scenario controlling worker exposure for: PROC15: Use as laboratory reagent

### Product characteristics

<table>
<thead>
<tr>
<th>Physical Form (at time of use)</th>
<th>Liquid substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor pressure</td>
<td>&gt; 20 kPa</td>
</tr>
</tbody>
</table>

### Amount used

Remarks: No limit

### Frequency and duration of use

Remarks: Covers daily exposures up to 8 hours (unless stated differently)

### Other operational conditions affecting workers exposure

**Outdoor / Indoor** Indoor

Remarks: Assumes a good basic standard of occupational hygiene is implemented. Assumes use at not more than 20°C above ambient temperature, unless stated differently.
ambient temperature, unless stated differently.

Technical conditions and measures
Handle in a fume cupboard or under extract ventilation.

3. Exposure estimation and reference to its source

Environment

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Compartment</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>Risk characterization ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC1, ERC4</td>
<td>Hydrocarbon Block Method with Petrorisk</td>
<td></td>
<td>Freshwater</td>
<td>0.0042 mg/L</td>
<td>0.015</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Marine water</td>
<td>0.0004 mg/L</td>
<td>0.0015</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Freshwater sediment</td>
<td>0.049 mg/kg</td>
<td>0.017</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Marine sediment</td>
<td>0.0049 mg/kg</td>
<td>0.0017</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Soil</td>
<td>0.0003 mg/kg</td>
<td>0.00035</td>
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</tr>
</tbody>
</table>

ERC1: Manufacture of substances
ERC4: Industrial use of processing aids in processes and products, not becoming part of articles

Workers/Consumers

<table>
<thead>
<tr>
<th>Contributing Scenario</th>
<th>Exposure Assessment Method</th>
<th>Specific conditions</th>
<th>Value type</th>
<th>Level of Exposure</th>
<th>Risk characterization ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC1, CS15, CS67</td>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>0.04 mg/m3</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – dermal, long-term – systemic</td>
<td>0.34 mg/kg/d</td>
<td>0.031</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROC2, CS15, CS67</td>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>17.62 mg/m3</td>
<td>0.235</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – dermal, long-term – systemic</td>
<td>0.137 mg/kg/d</td>
<td>0.012</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.247</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROC3, CS15</td>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>35.25 mg/m3</td>
<td>0.470</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – dermal, long-term – systemic</td>
<td>0.034 mg/kg/d</td>
<td>0.003</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.473</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROC4, CS16</td>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>35.25 mg/m3</td>
<td>0.470</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – dermal, long-term – systemic</td>
<td>0.686 mg/kg/d</td>
<td>0.062</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.532</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROC8a, CS39</td>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>26.44 mg/m3</td>
<td>0.352</td>
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<tr>
<td></td>
<td></td>
<td>Worker – dermal, long-term – systemic</td>
<td>2.742 mg/kg/d</td>
<td>0.249</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.602</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROC8b, CS2, CS14, CS107</td>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>15.86 mg/m3</td>
<td>0.211</td>
<td></td>
</tr>
</tbody>
</table>
## n-Hexane 95%

<table>
<thead>
<tr>
<th>CS108</th>
<th>Worker – dermal, long-term – systemic</th>
<th>0.686 mg/kg/d</th>
<th>0.062</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC15, CS36</td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.274</td>
<td></td>
</tr>
<tr>
<td>ECETOC TRA</td>
<td>Worker – inhalation, long-term – systemic</td>
<td>17.62 mg/m3</td>
<td>0.235</td>
</tr>
<tr>
<td></td>
<td>Worker – dermal, long-term – systemic</td>
<td>0.034 mg/kg/d</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>Worker – long-term – systemic Combined routes</td>
<td>0.238</td>
<td></td>
</tr>
</tbody>
</table>

PROC1: Use in closed process, no likelihood of exposure
CS15: General exposures (closed systems)
CS67: Storage

PROC2: Use in closed, continuous process with occasional controlled exposure
CS15: General exposures (closed systems)
CS67: Storage

PROC3: Use in closed batch process (synthesis or formulation)
CS15: General exposures (closed systems)

PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises
CS16: General exposures (open systems)

PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
CS39: Equipment cleaning and maintenance

PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
CS2: Process sampling
CS14: Bulk transfers
CS107: (closed systems)
CS108: (open systems)

PROC15: Use as laboratory reagent
CS36: Laboratory activities

## 4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the Exposure Scenario

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.

Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.
Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination.
Further details on scaling and control technologies are provided in SpERC factsheet (http://cefic.org/en/reach-for-industries-libraries.html).