

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

### 1.1. Product identifier

Product form : Mixture  
Trade name : COMCAT NdFC - G2/G6/G7 (0,06 mol/l Nd)

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

#### 1.2.1. Relevant identified uses

Use of the substance/mixture : Catalyst for Ziegler-Natta Polymerisations

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

Only Representative  
Intertek Deutschland GmbH  
Stangenstrasse 1  
70771 Leinfelden-Echterdingen  
Tel: +49 711 273 11 196  
REACH-OR.de@intertek.de

Manufacturer  
COMAR Chemicals (Pty) Ltd  
Neil Hare Road  
Atlantis Industrial 7350  
Cape Town  
South Africa  
Tel: +27 21 577-1333  
Fax: +27 21 577-1343  
e-mail : info@comarchem.co.za  
[www.comarchem.com](http://www.comarchem.com)

### 1.4. Emergency telephone number

Emergency number : +27 827 740 071 / +27 215 771 333 / +27 825 774 766

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2	H225
Substances and Mixtures which, in contact with water, emit flammable gases, Category 1	H260
Skin corrosion/irritation, Category 1B	H314
Reproductive toxicity, Category 2	H361
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity — Repeated exposure, Category 2	H373
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H statements : see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich; Reaction products of Neodymium (III) salt of C10-branched carboxylic acid, hydrido(diisobutyl)aluminium, di- $\mu$ -chloro(chloro)triethylaluminium and buta-1,3-diene

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.  
H260 - In contact with water releases flammable gases which may ignite spontaneously.  
H304 - May be fatal if swallowed and enters airways.  
H314 - Causes severe skin burns and eye damage.  
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 (CLP)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P231+P232 - Handle and store contents under inert gas. Protect from moisture.  
P233 - Keep container tightly closed.  
P235 - Keep cool.  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.  
P273 - Avoid release to the environment.

### 2.3. Other hazards

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich	(CAS-No.) Not available (EC-No.) 925-292-5 (REACH-No.) 01-2119474209-33	32.8	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
n-Hexane	(CAS-No.) 110-54-3 (EC-No.) 203-777-6 (EC Index-No.) 601-037-00-0 (REACH-No.) Not available	36.5	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361f STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Cyclohexane	(CAS-No.) 110-82-7 (EC-No.) 203-806-2 (EC Index-No.) 601-017-00-1 (REACH-no) Not available	3.7	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
Reaction products of Neodymium (III) salt of C10-branched carboxylic acid, hydrido(diisobutyl)aluminium, di- $\mu$ -chloro(chloro)triethylaluminium and buta-1,3-diene	(CAS-No.) Not available (EC-No.) 942-526-1 (REACH-No.) 01-2120091561-57-0000	27	Pyr. Liq. 1, H250 Water-react. 1, H260 Skin Corr. 1B, H314

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. In case of breathing difficulties administer oxygen. Call a POISON CENTER/doctor if you feel unwell.

First-aid measures after skin contact

: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. In all cases of doubt, or when symptoms persist, seek medical advice. Wash contaminated clothing before reuse.

First-aid measures after eye contact

: Rinse immediately and plentifully with water, also under the eyelids, for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if you feel unwell.

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First-aid measures after ingestion : Caution if victim vomits: Risk of aspiration!. Do not induce vomiting. Aspiration of this material may cause chemical pneumonia. Rinse mouth. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects after skin contact : Causes severe skin burns and eye damage.  
Symptoms/effects after eye contact : Causes serious eye burns.  
Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.  
Chronic symptoms : Causes damage to organs through prolonged or repeated exposure.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. Sand.  
Unsuitable extinguishing media : High power water jet. Do not use a heavy water stream. Foam.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour. In contact with water releases flammable gases which may ignite spontaneously. Beware of reignition.  
Explosion hazard : No additional information available.  
Hazardous decomposition products in case of fire : carbon oxides. Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire : Evacuate personnel to a safe area. Evacuate the personnel away from the fumes. No action shall be taken involving any personal risk or without suitable training. Move undamaged containers from immediate hazard area if it can be done safely.  
Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.  
Protective equipment for firefighters : In case of fire: Wear self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.  
Other information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Ensure that the equipment is adequately grounded. Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Do not breathe fumes from fires or vapours from decomposition. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing.  
Emergency procedures : Evacuate unnecessary personnel. Eliminate all ignition sources if safe to do so. Ventilate affected area.

#### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing. In case of fire: Wear self-contained breathing apparatus.  
Emergency procedures : Inform the public about the hazard and give advice to keep upwind. When leaks or spills occur, only properly protected personnel should remain in the area. Ventilate area.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Dispose of this material and its container to hazardous or special waste collection point. Stop leak, if possible without risk. Move undamaged containers from immediate hazard area if it can be done safely.  
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.  
Other information : Contaminated absorbent material may pose the same hazard as the spilled product.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable. In use, may form flammable vapour-air mixture.
Precautions for safe handling	: Provide adequate ventilation. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact of substance with water.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety procedures. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment. Use only explosion-proof equipment. Prevent the build-up of electrostatic charge.
Storage conditions	: For <b>QUALITY integrity related purposes</b> , keep container stored at maximum -15 degrees celcius under dry inert conditions (nitrogen). For <b>SAFETY and HAZARD related purposes</b> : <ul style="list-style-type: none"><li>- store in original container.</li><li>- Keep product away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep the container hermetically sealed. Protect from moisture and air.</li></ul> There are no <u>hazard threats</u> if the product reaches ambient temperatures.
Incompatible products	: Water.
Heat and ignition sources	: Remove all sources of ignition. Store away from direct sunlight or other heat sources.
Storage area	: Store under nitrogen. Store in a place accessible by authorized persons only. Store in original container or corrosive resistant and/or lined container. Store in a designated area where 400V AC power supply is available, plug in power cable for Isotainer refrigeration system, and monitor operation thereof.
Special rules on packaging	: Keep the container hermetically sealed.
Packaging materials	: Keep only in the original container.

#### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### cyclohexane (110-82-7)

##### EU - Occupational Exposure Limits

Local name	Cyclohexane
IOELV TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
IOELV TWA (ppm)	200 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC

##### Austria - Occupational Exposure Limits

Local name	Cyclohexan
MAK (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
MAK (ppm)	200 ppm
MAK Short time value (mg/m <sup>3</sup> )	2800 mg/m <sup>3</sup>
MAK Short time value (ppm)	800 ppm
Regulatory reference	BGBl. II Nr. 186/2015

##### Belgium - Occupational Exposure Limits

Local name	Cyclohexane # Cyclohexaan
Limit value (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
Limit value (ppm)	100 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018

##### Bulgaria - Occupational Exposure Limits

Local name	Циклохексан
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Notes	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр.73 от 4 септември 2018 г.)

##### Croatia - Occupational Exposure Limits

Local name	Cikloheksan
GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
GVI (granična vrijednost izloženosti) (ppm)	200 ppm
Naznake (HR)	Direktiva: 2006/15/EZ. Napomena: Koža (razvrstana kao tvar koja nadražuje kožu (H315))
OEL chemical category (HR)	Skin notation
Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)

##### Croatia - Biological limit values

Croatia - BLV	150 mg/g creatinine Parameter: 1,2-Cyclohexanediol - Medium: urine - Sampling time: at the end of the work shift; at chronic exposure after several successive shifts 450 µg/l Parameter: Cyclohexanol - Medium: blood - Sampling time: during exposure 3.2 mg/g creatinine Parameter: Cyclohexanol - Medium: urine - Sampling time: during the second half of the work shift (calculated on the average Creatinine value of 1.2 g/L urine)
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##### Cyprus - Occupational Exposure Limits

OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm

##### Czech Republic - Occupational Exposure Limits

Local name	Cyklohexan
Expoziční limity (PEL) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>

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Expoziční limity (PEL) (ppm)	200 ppm
Expoziční limity (NPK-P) (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup>
Expoziční limity (NPK-P) (ppm)	580 ppm
Remark (CZ)	I (dráždí sliznice (oči, dýchací cesty) resp. kůži)
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (zpracovány změny č. 246/2018 Sb.)
<b>Denmark - Occupational Exposure Limits</b>	
Local name	Cyclohexan
Grænseværdie (langvarig) (mg/m <sup>3</sup> )	172 mg/m <sup>3</sup>
Grænseværdie (langvarig) (ppm)	50 ppm
Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi)
Regulatory reference	BEK nr 655 af 31/05/2018
<b>Estonia - Occupational Exposure Limits</b>	
Local name	Tsükloheksaan
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
<b>Finland - Occupational Exposure Limits</b>	
Local name	Sykloheksaani
HTP-arvo (8h) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
HTP-arvo (8h) (ppm)	100 ppm
HTP-arvo (15 min)	875 mg/m <sup>3</sup>
HTP-arvo (15 min) (ppm)	250 ppm
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveystieteiden ministeriö)
<b>France - Occupational Exposure Limits</b>	
Local name	Cyclohexane
VME (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
VME (ppm)	200 ppm
VLE (mg/m <sup>3</sup> )	1300 mg/m <sup>3</sup>
VLE (ppm)	375 ppm
Note (FR)	VME réglementaire contraignante; la VLE n'est pas réglementaire et provient d'une circulaire du ministère chargé du travail
Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016)
<b>Germany - Occupational Exposure Limits (TRGS 900)</b>	
TRGS 900 Local name	Cyclohexan
TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
TRGS 900 Occupational exposure limit value (ppm)	200 ppm
TRGS 900 Limitation of exposure peaks	4(II)
TRGS 900 Remark	DFG;EU
TRGS 900 Regulatory reference	TRGS900
<b>Germany - Biological limit values (TRGS 903)</b>	
TRGS 903 Local name	Cyclohexan
TRGS 903 Biological limit value	150 mg/g creatinine Parameter: total 1,2-Cyclohexanediol (after hydrolysis) - Medium: urine - Sampling time: end of shift 150 mg/g creatinine Parameter: total 1,2-Cyclohexanediol (after hydrolysis) - Medium: urine - Sampling time: for long-term exposures: at the end of the shift after several shifts
TRGS 903 Regulatory reference	TRGS 903

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cyclohexane (110-82-7)	
<b>Gibraltar - Occupational Exposure Limits</b>	
Name of agent	Cyclohexane
Eight hours mg/m <sup>3</sup>	700 mg/m <sup>3</sup>
Eight hours ppm	200 ppm
Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
<b>Greece - Occupational Exposure Limits</b>	
Local name	Κυκλοεξάνιο
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Regulatory reference	Π.Δ. 162/2007
<b>Hungary - Occupational Exposure Limits</b>	
Local name	CIKLOHEXÁN
AK-érték	700 mg/m <sup>3</sup>
CK-érték	2800 mg/m <sup>3</sup>
Megjegyzések (HU)	II.1 (FELSZÍVÓDVA HATÓ ANYAGOK (Az anyag hatásának fellépése 2 órán belül; Felezési idő < 2 óra)), EU2 (2006/15/EK irányelvben közölt érték)
Regulatory reference	25/2000. (IX. 30.) EüM–SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Cyclohexane
OEL (8 hours ref) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	200 ppm
Notes (IE)	IOELV (Indicative Occupational Exposure Limit Values)
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
<b>Italy - Occupational Exposure Limits</b>	
Local name	Cicloesano
OEL TWA (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
OEL TWA (ppm)	100 ppm
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
<b>Latvia - Occupational Exposure Limits</b>	
Local name	Cikloheksāns
OEL TWA (mg/m <sup>3</sup> )	80 mg/m <sup>3</sup>
OEL TWA (ppm)	23 ppm
Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325
<b>Lithuania - Occupational Exposure Limits</b>	
Local name	Cikloheksanas
IPRV (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
IPRV (ppm)	200 ppm
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
<b>Luxembourg - Occupational Exposure Limits</b>	
Local name	Cyclohexane
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Regulatory reference	Mémorial A N° 684 de 2018
<b>Malta - Occupational Exposure Limits</b>	
Local name	Cyclohexane



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OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Regulatory reference	S.L.424.24 (L.N.57 of 2018)
<b>Netherlands - Occupational Exposure Limits</b>	
Local name	Cyclohexaan
Grenswaarde TGG 8H (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	1400 mg/m <sup>3</sup>
Regulatory reference	Arbeidsomstandighedenregeling 2018
<b>Poland - Occupational Exposure Limits</b>	
Local name	Cykloheksan
NDS (mg/m <sup>3</sup> )	300 mg/m <sup>3</sup>
NDSCh (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Remark (PL)	Skóra (Oznakowanie substancji notacją „skóra” oznacza, że wchłanianie substancji przez skórę może być tak samo istotne jak przy narażeniu drogą oddechową)
Regulatory reference	Dz. U. 2018 poz. 1286
<b>Portugal - Occupational Exposure Limits</b>	
Local name	Ciclo-hexano
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup> (indicative limit value)
OEL TWA (ppm)	100 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
<b>Romania - Occupational Exposure Limits</b>	
Local name	Ciclohexan
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Regulatory reference	Hotărârea nr. 584/2018
<b>Slovakia - Occupational Exposure Limits</b>	
Local name	Cyklohexán
NPHV (priemerná) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
NPHV (priemerná) (ppm)	200 ppm
Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
<b>Slovenia - Occupational Exposure Limits</b>	
Local name	cikloheksan
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m <sup>3</sup> )	2800 mg/m <sup>3</sup>
OEL STEL (ppm)	800 ppm
Remark (SI)	BAT (Biološka mejna vrednost), EU
Regulatory reference	Uradni list RS, št. 78/2018 z dne 4.12.2018
<b>Spain - Occupational Exposure Limits</b>	
Local name	Ciclohexano
VLA-ED (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
VLA-ED (ppm)	200 ppm

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Notes	VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo), r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el "Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos" (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido).
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
<b>Sweden - Occupational Exposure Limits</b>	
Local name	Cyklohexan
nivågränsvärde (NVG) (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
nivågränsvärde (NVG) (ppm)	200 ppm
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Cyclohexane
WEL TWA (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
WEL TWA (ppm)	100 ppm
WEL STEL (mg/m <sup>3</sup> )	1050 mg/m <sup>3</sup>
WEL STEL (ppm)	300 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
<b>Iceland - Occupational Exposure Limits</b>	
Local name	Sýklóhexan
OEL (8 hours ref) (mg/m <sup>3</sup> )	175 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	50 ppm
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
<b>Norway - Occupational Exposure Limits</b>	
Local name	Sykloheksan
Grenseverdier (AN) (mg/m <sup>3</sup> )	525 mg/m <sup>3</sup>
Grenseverdier (AN) (ppm)	150 ppm
Grenseverdier (Korttidsverdi) (mg/m <sup>3</sup> )	656.25 mg/m <sup>3</sup> (value calculated)
Grenseverdier (Korttidsverdi) (ppm)	187.5 ppm (value calculated)
Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Regulatory reference	FOR-2018-08-21-1255
<b>Switzerland - Occupational Exposure Limits</b>	
Local name	Cyclohexane / Cyclohexan
MAK (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
MAK (ppm)	200 ppm
KZGW (mg/m <sup>3</sup> )	2800 mg/m <sup>3</sup>
KZGW (ppm)	800 ppm
Critical toxicity	SNC / ZNS
Notation	B / B
Remark	NIOSH
Regulatory reference	www.suva.ch, 01.07.2019
<b>Switzerland - Biological limit values</b>	
Switzerland - BLV	150 mg/g creatinine Parameter: total 1,2-Cyclohexanediol - Medium: urine - Sampling time: end of shift, and after several shifts (for long-term exposures)

# COMCAT NdFC-G2/G6/G7 (0,06 mol/l Nd)

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<b>cyclohexane (110-82-7)</b>	
<b>Turkey - Occupational Exposure Limits</b>	
Local name	Sikloheksan
OEL TWA (mg/m <sup>3</sup> )	700 mg/m <sup>3</sup>
OEL TWA (ppm)	200 ppm
Regulatory reference	12 Ağustos 2013 Tarihli ve 28733 Sayılı Resmî Gazete
<b>n-hexane (110-54-3)</b>	
<b>EU - Occupational Exposure Limits</b>	
Local name	n-Hexane
<b>Austria - Occupational Exposure Limits</b>	
Local name	n-Hexan
MAK Short time value (mg/m <sup>3</sup> )	288 mg/m <sup>3</sup>
MAK Short time value (ppm)	80 ppm
Remark (AT)	max. 4x15 min./Schicht
Regulatory reference	BGBI. II Nr. 186/2015
<b>Belgium - Occupational Exposure Limits</b>	
Local name	n-Hexane # n-Hexaan
Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
<b>Bulgaria - Occupational Exposure Limits</b>	
Local name	n-Хексан
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Notes	• (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр.73 от 4 септември 2018 г.)
<b>Croatia - Biological limit values</b>	
Croatia - BLV	150 µg/l Parameter: n-Hexane - Medium: blood - Sampling time: during exposure 40 ppm Parameter: n-Hexane - Medium: final exhaled air - Sampling time: during exposure 0.2 mg/g creatinine Parameter: 2-Hexanol - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine) 5.3 mg/g creatinine Parameter: 2,5-Hexanedione - Medium: urine - Sampling time: at the end of the work shift (calculated on the average Creatinine value of 1.2 g/L urine)
<b>Czech Republic - Occupational Exposure Limits</b>	
Local name	n-Hexan
Regulatory reference	Nařízení vlády č. 361/2007 Sb. (zpracovány změny č. 246/2018 Sb.)
<b>Denmark - Occupational Exposure Limits</b>	
Local name	n-Hexan
Regulatory reference	BEK nr 655 af 31/05/2018
<b>Estonia - Occupational Exposure Limits</b>	
Local name	n-heksaan
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
<b>Finland - Occupational Exposure Limits</b>	
Local name	n-Heksaani
Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)

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<b>n-hexane (110-54-3)</b>	
<b>France - Occupational Exposure Limits</b>	
Local name	n-Hexane
VME (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
VME (ppm)	20 ppm
<b>France - Biological limit values</b>	
France - BLV	5 mg/g creatinine Parameter: 2,5-Hexanedione - Medium: urine - Sampling time: end of shift (Non-specific (observed after the exposure to other substances))
<b>Germany - Occupational Exposure Limits (TRGS 900)</b>	
TRGS 900 Local name	N-HEXAN
TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	1500 mg/m <sup>3</sup> KOHLENWASSERSTOFFGEMISCHE, VERWENDUNG ALS LÖSEMITTEL (LÖSEMITTELKOHLENWASSERSTOFFE), ADDITIV-FREI. FRAKTIONEN (RCP GRUPPEN): C5-C8 ALIPHATEN
TRGS 900 Occupational exposure limit value (ppm)	50 ppm
<b>Gibraltar - Occupational Exposure Limits</b>	
Name of agent	n-Hexane
Eight hours mg/m <sup>3</sup>	72 mg/m <sup>3</sup>
Eight hours ppm	20 ppm
Regulatory reference	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
<b>Ireland - Occupational Exposure Limits</b>	
Local name	n-Hexane
OEL chemical category (IE)	Potential for cutaneous absorption
Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
<b>Italy - Occupational Exposure Limits</b>	
Local name	n-Esano
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
<b>Latvia - Occupational Exposure Limits</b>	
Local name	n-Heksāns
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325 (Grozījumi Ministru kabineta 2015.gada 7.aprīlī noteikumiem Nr.163)
<b>Lithuania - Occupational Exposure Limits</b>	
Local name	n-heksanas
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
<b>Luxembourg - Occupational Exposure Limits</b>	
Local name	n-Hexane
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	Mémorial A N° 684 de 2018
<b>Malta - Occupational Exposure Limits</b>	
Local name	n-Hexane
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	S.L.424.24 (L.N.57 of 2018)

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<b>n-hexane (110-54-3)</b>	
<b>Netherlands - Occupational Exposure Limits</b>	
Local name	n-Hexaan
Regulatory reference	Arbeidsomstandighedenregeling 2018
<b>Poland - Occupational Exposure Limits</b>	
Local name	Heksan (n-heksan)
Regulatory reference	Dz. U. 2018 poz. 1286
<b>Portugal - Occupational Exposure Limits</b>	
Local name	n-Hexano
OEL TWA (ppm)	50 ppm
Regulatory reference	Norma Portuguesa NP 1796:2014
<b>Romania - Occupational Exposure Limits</b>	
Local name	n-Hexan
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	Hotărârea nr. 584/2018
<b>Romania - Biological limit values</b>	
Romania - BLV	5 mg/g creatinine Parameter: 2,5-Hexandion - Medium: urine - Sampling time: end of shift
<b>Slovakia - Occupational Exposure Limits</b>	
Local name	n-Hexán
OEL STEL (mg/m <sup>3</sup> )	140 mg/m <sup>3</sup>
OEL STEL (ppm)	40 ppm
Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
<b>Slovakia - Biological limit values</b>	
Slovakia - BLV	5 mg/l Parameter: 2,5-Hexanedione - Medium: urine - Sampling time: end of exposure or work shift 5 mg/l Parameter: 4,5-Dihydroxy-2-hexanone - Medium: urine - Sampling time: end of exposure or work shift
<b>Slovenia - Occupational Exposure Limits</b>	
OEL STEL (mg/m <sup>3</sup> )	576 mg/m <sup>3</sup>
OEL STEL (ppm)	160 ppm
<b>Spain - Occupational Exposure Limits</b>	
Local name	n-Hexano
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
<b>Spain - Biological limit values</b>	
Spain - BLV	0.2 mg/l Parameter: 2,5-Hexanedione - Medium: urine - Sampling time: end of workweek (without hydrolysis)
<b>Sweden - Occupational Exposure Limits</b>	
Local name	n-Hexan
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	n-Hexane
WEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
WEL TWA (ppm)	20 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
<b>Norway - Occupational Exposure Limits</b>	
Local name	n-heksan

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n-hexane (110-54-3)	
Regulatory reference	FOR-2018-08-21-1255
<b>Switzerland - Biological limit values</b>	
Switzerland - BLV	5 mg/l Parameter: 2,5-Hexanedione plus 4,5-Dihydroxy-2-hexanone - Medium: urine - Sampling time: end of shift
<b>Turkey - Occupational Exposure Limits</b>	
Local name	n-Hekzan
OEL TWA (mg/m <sup>3</sup> )	72 mg/m <sup>3</sup>
OEL TWA (ppm)	20 ppm
Regulatory reference	12 Ağustos 2013 Tarihli ve 28733 Sayılı Resmî Gazete

## 8.2. Exposure controls

### Appropriate engineering controls:

Local exhaust and general room ventilation are both essential to prevent accumulation of flammable vapour. Use explosion-proof ventilating equipment. Emergency shower installed.

### Personal protective equipment:

On heating: gas mask with filter type A. Gloves. Safety glasses. High vapour/gas concentration: self-contained respirator.

<b>Materials for protective clothing:</b>
Wear suitable protective clothing
<b>Hand protection:</b>
Wear suitable gloves tested to EN 374. NBR (Nitrile rubber). Break through time: ≥ 480 min. Material thickness: 0,38 mm.
<b>Eye protection:</b>
Chemical goggles or safety glasses. Face shield
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
Half/ full mask with filter for organic vapours . In confined space use self-contained breathing apparatus. EN 141. EN 140. EN 136

### Personal protective equipment symbol(s):



### Environmental exposure controls:

Assure that emissions are compliant with all applicable air pollution control regulations. Use engineering controls to keep exposures below the OEL or DNEL.

### Other information:

Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear
Colour	: Green
Odour	: Hexane
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 55 - 85 °C
Flash point	: -20 °C (ASTM D-56)

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 18 kPa @ 20°C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.72 kg/l
Solubility	: Water: Reacts violently with water Organic solvent:soluble in most organic solvents
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive. However, formation of explosive air/vapour mixtures are possible.
Oxidising properties	: Not oxidizing. None of the components are classified for oxidizing properties.
Explosive limits	: 1.2 - 8.3 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts violently with water liberating highly flammable gases.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. No direct sunlight.

### 10.5. Incompatible materials

Avoid contact of substance with water.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases. Metal oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich (Not available)

LD50 oral rat	> 5000 ml/kg (OECD 401)
LD50 dermal	> 3350 mg/kg (OECD 402)
LC50 inhalation rat (Vapours - mg/l/4h)	> 20 mg/l

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Serious eye damage, category 1, implicit
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: May be fatal if swallowed and enters airways.

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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

##### COMCAT NdFC/G7

Bioaccumulative potential	Not established.
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#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Handle empty containers with care because residual vapours are flammable. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Recycle or dispose of in compliance with current legislation. Recycling is preferred to disposal or incineration. May be reused following decontamination. Dispose as hazardous waste.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Avoid release to the environment. Dispose as hazardous waste.

### SECTION 14: Transport information

In accordance with RID / IMDG / IATA / ADR / ADN







ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 3399	UN 3399	UN 3399	UN 3399	UN 3399
<b>14.2. UN proper shipping name</b>				
ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER REACTIVE, FLAMMABLE	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE
<b>Transport document description</b>				
UN 3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE, 4.3 (3), I, (B/E), ENVIRONMENTALLY HAZARDOUS	UN 3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE, 4.3 (3), I, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE, 4.3, I, ENVIRONMENTALLY HAZARDOUS	UN 3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER REACTIVE, FLAMMABLE, 4.3 (3), I, ENVIRONMENTALLY HAZARDOUS	UN 3399 ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE, 4.3 (3), I, ENVIRONMENTALLY HAZARDOUS



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14.3. Transport hazard class(es)				
4.3 (3)	4.3 (3)	4.3 (3)	4.3 (3)	4.3 (3)
				
14.4. Packing group				
I	I	I	I	I
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				
14.6. Special precautions for user				
Storage conditions				
: For <b>QUALITY integrity related purposes</b> , keep container stored at maximum -18 degrees celcius under dry inert conditions (nitrogen).				
For <b>SAFETY and HAZARD related purposes</b> :				
- store in original container.				
- Keep product away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep the container hermetically sealed. Protect from moisture and air.				
- There are no <u>hazard threats</u> if the product reaches ambient temperatures.				
<b>Overland transport</b>				
Classification code (ADR)	:	WF1		
Special provisions (ADR)	:	274		
Limited quantities (ADR)	:	0		
Excepted quantities (ADR)	:	E0		
Packing instructions (ADR)	:	P402		
Mixed packing provisions (ADR)	:	MP2		
Portable tank and bulk container instructions (ADR)	:	T13		
Portable tank and bulk container special provisions (ADR)	:	TP2, TP7, TP36, TP41		
Tank code (ADR)	:	L10DH		
Tank special provisions (ADR)	:	TU4, TU14, TU22, TE21, TM2		
Vehicle for tank carriage	:	FL		
Transport category (ADR)	:	0		
Special provisions for carriage - Packages (ADR)	:	V1		
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV23		
Special provisions for carriage - Operation (ADR)	:	S2, S20		
Hazard identification number (Kemler No.)	:	X323		
Orange plates	:			
Tunnel restriction code (ADR)	:	B/E		
EAC code	:	4W		
APP code	:	A(fl)		
<b>Transport by sea</b>				
Special provisions (IMDG)	:	274		
Packing instructions (IMDG)	:	P402		
Special packing provisions (IMDG)	:	PP31		
Tank instructions (IMDG)	:	T13		

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Tank special provisions (IMDG)	: TP2, TP7, TP36, TP41
EmS-No. (Fire)	: F-G
EmS-No. (Spillage)	: S-N
Stowage category (IMDG)	: D
Stowage and handling (IMDG)	: SW2, H1
Segregation (IMDG)	: SG35, SG26
Properties and observations (IMDG)	: Flammable liquid. Reacts violently with moisture, water and acids evolving flammable gas.
MFAG-No	: 128

### Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 494
CAO max net quantity (IATA)	: 1L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 4FW

### Inland waterway transport

Classification code (ADN)	: WF1
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Provisions for handling and stowage of the cargo (ADN)	: HA08
Number of blue cones/lights (ADN)	: 1

### Rail transport

Classification code (RID)	: WF1
Special provisions (RID)	: 274
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P402
Mixed packing provisions (RID)	: MP2
Portable tank and bulk container instructions (RID)	: T13
Portable tank and bulk container special provisions (RID)	: TP2, TP7, TP36, TP41
Tank codes for RID tanks (RID)	: L10DH
Special provisions for RID tanks (RID)	: TU4, TU14, TU22, TU38, TE21, TE22, TM2
Transport category (RID)	: 0
Special provisions for carriage – Packages (RID)	: W1
Special provisions for carriage - Loading, unloading and handling (RID)	: CW23
Hazard identification number (RID)	: X323

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

REACH: Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles according to Annex XVII of REACH REGULATION: No. 3, 40 and 57.  
Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances  
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.  
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### 15.1.2. National regulations

###### Germany

Reference to AwSV : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1)  
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

###### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed  
SZW-lijst van mutagene stoffen : None of the components are listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : n-hexane is listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

###### Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed  
Danish National Regulations : Pregnant/breastfeeding women working with the product must not be in direct contact with the product  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the substance or the mixture by the supplier

### SECTION 16: Other information

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich	(CAS-No.) Not available (EC-No.) 925-292-5 (REACH-No.) 01-2119474209-33	( 5 <C <= 100) Flam. Liq. 2, H225 ( 5 <C <= 100) Skin Irrit. 2, H315 ( 5 <C <= 100) Repr. 2, H361 ( 5 <C <= 100) STOT SE 3, H336 ( 5 <C <= 100) STOT RE 2, H373 ( 5 <C <= 100) Asp. Tox. 1, H304 ( 5 <C <= 100) Aquatic Chronic 2, H411
n-Hexane	(CAS-No.) 110-54-3 (EC-No.) 203-777-6 (EC Index-No.) 601-037-00-0 (REACH-No.) 01-2119480412-44	( 5 =<C < 100) STOT RE 2, H373

#### Indication of changes:

3. Composition/information on ingredients.

#### Abbreviations and acronyms:

ACGIH	ACGIH (American Conference of Government Industrial Hygienists)
CAS	CAS - Chemical Abstracts Service
TWA	TWA- Time Weighted Average

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Sources of Key data	: Supplier's Safety Data Sheet. REACH registration.
Other information	: It is the user's responsibility to take mentioned precaution measures and ensure that this information is complete and sufficient for the use of this product.

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Pyr. Liq. 1	Pyrophoric Liquids, Category 1
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1
H225	Highly flammable liquid and vapour.
H250	Catches fire spontaneously if exposed to air.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 2	H225	On basis of test data
Pyr. Liq. 1	H250	Calculation method
Water-react. 1	H260	Calculation method
Skin Corr. 1B	H314	Calculation method
Repr. 2	H361	Calculation method
STOT SE 3	H336	Calculation method
STOT RE 2	H373	Calculation method
Asp. Tox. 1	H304	Calculation method
Aquatic Chronic 2	H411	Calculation method

# COMCAT NdFC-G2/G6/G7 (0,06 mol/l Nd)

## Safety Data Sheet

according to Regulation (EU) 2015/830

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Last Version: New

Reason for Change: Consolidated catalyst grades

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*