

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Reference number: 00161 Issue date: 1/18/2024 Revision date: 1/18/2024 Supersedes version of: 2/6/2019 Version: 1.0

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

exance EXANE 99% FOR SYNTHESIS -037-00-0 -777-6 -54-3 61 Irocarbons, aliphatic 114 H H H H H H - $C-C-C-C-C-C-H$ H H H H H H exane, Sextane, Hexacarbane mixture and uses advised against ustrial professional use only
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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
Skin corrosion/irritation, Category 2	H315
Reproductive toxicity, Category 2	H361f
Specific target organ toxicity - Single exposure, Category 3,	H336
Narcosis	
Specific target organ toxicity - Repeated exposure, Category	/ 2 H373
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment – Chronic Hazard,	H411
Category 2	
Full text of H- and EUH-statements: see section 16	

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Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

2.2. Label elements	
Labelling according to Regulation (EC) No	o. 1272/2008 [CLP]
Hazard pictograms (CLP)	
	GHS02 GHS07 GHS08 GHS09
Signal word (CLP)	: Danger
Hazard statements (CLP)	 H225 - Highly flammable liquid and vapour. H304 - May be fatal if swallowed and enters airways. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness. H361f - Suspected of damaging fertility. H373 - May cause damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . P331 - Do NOT induce vomiting.

2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type :	Mono-constituent	
Name	Product identifier	%
n-HEXANE 99%	CAS-No.: 110-54-3 EC-No.: 203-777-6 EC Index-No.: 601-037-00-0	100

3.2. Mixtures

Not applicable

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SECTION 4: First aid measures

1 Description of first aid measu

4.1. Description of mist and measures	
First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Wash with plenty of water/ Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label).

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First-aid measures after eye contact First-aid measures after ingestion	 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention. Immediately call a POISON CENTER/doctor. Do not induce vomiting. Call a physician immediately.
4.2. Most important symptoms and effec	ts, both acute and delayed
Symptoms/effects	: Suspected of damaging fertility. Causes damage to organs. May cause drowsiness or dizziness.
Symptoms/effects after inhalation	: May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	Water spray. Foam. Dry powder. Carbon dioxide.Do not use a heavy water stream.	
5.2. Special hazards arising from the substance or mixture		
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	 Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture. Toxic fumes may be released. 	
5.3. Advice for firefighters		
Firefighting instructions Protection during firefighting	 Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. 	

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equi	pment and emergency procedures	
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.	
6.1.1. For non-emergency personnel		
Protective equipment Emergency procedures	 Wear recommended personal protective equipment. Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. 	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".	
Emergency procedures	: Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.	
6.2. Environmental precautions		
Avoid release to the environment.		

6.3. Methods and material for containment and cleaning up		
For containment	: Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.	

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Methods for cleaning up	: Take up liquid spill into absorbent material. Collect spillage. On land, sweep or shovel into
Other information	suitable containers. Notify authorities if product enters sewers or public waters. Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Additional hazards when processed Precautions for safe handling Hygiene measures	 Handle empty containers with care because residual vapours are flammable. 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. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. 	
7.2. Conditions for safe storage, including any incompatibilities		
Technical measures	 Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. 	
Storage conditions	 Keep in fireproof place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. 	
Incompatible materials Packaging materials	 Heat sources. Store always product in container of same material as original container. 	

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

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8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.





8.2.2.1. Eye and face protection

Eye protection: Chemical goggles or safety glasses

8.2.2.2. Skin protection

Skin and body protection: Wear a mask

Hand protection: Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection: Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Appearance	: Clear liquid.
Molecular mass	: 86.18 g/mol
Odour	: gasoline-like.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -96 – -94 °C
Boiling point	: 68 – 70 °C
Flammability	: Flammable
	Highly flammable liquid and vapour.
Lower explosion limit	: 1.1 vol %
Upper explosion limit	: 7.5 vol %
Flash point	: -22 °C
Auto-ignition temperature	: 225 °C at 1.013 hPa
Decomposition temperature	: Not available
рН	: ≈7
Viscosity, kinematic	: 0.47 mm²/s
Viscosity, dynamic	: 0.31 mPa·s 20 °C
Solubility	: Water: Immiscible in water
	Ethanol: Miscible
	Ether: Miscible
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 151 mm Hg at 25 °C
Vapour pressure at 50°C	: Not available

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Density Relative density	: 0.66 g/cm³ at 20 °C : Not available
Relative vapour density at 20°C	: 2.97 (Air = 1)
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Refractive index

: 1.374 - 1.376 (20 °C, 589 nm)

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapour.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Open flame. Direct sunlight. Overheating. Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

: Not classified
: Not classified
: Not classified
: Causes skin irritation.
pH: ≈ 7
: Not classified
pH: ≈ 7
: Not classified
: Not classified
: Not classified
: Suspected of damaging fertility.
: May cause drowsiness or dizziness.
: May cause damage to organs through prolonged or repeated exposure.
: May be fatal if swallowed and enters airways.
3)
0.47 mm²/s

No additional information available

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SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general:Ecology - water:Hazardous to the aquatic environment, short-term:(acute):Hazardous to the aquatic environment, long-term:(chronic):	Toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Not classified Toxic to aquatic life with long lasting effects.
12.2. Persistence and degradability	
n-HEXANE 99% FOR SYNTHESIS (110-54-3)	
Persistence and degradability	Rapidly degradable
12.3. Bioaccumulative potential No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Endocrine disrupting properties	
No additional information available	
12.7. Other adverse effects	
No additional information available	

SECTION 13: Disposal consideration	s
13.1. Waste treatment methods	
Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Disposal must be done according to official regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable. Flammable

Ecological information

: Hazardous waste due to toxicity.

vapours may accumulate in the container. Do not re-use empty containers.

SECTION 14: Transport information

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

14.1. UN number or ID number	
UN-No. (ADR)	: UN 1208
UN-No. (IMDG)	: UN 1208
UN-No. (IATA)	: UN 1208
UN-No. (ADN)	: UN 1208
UN-No. (RID)	: UN 1208

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14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: HEXANES
Proper Shipping Name (IMDG)	: HEXANES
Proper Shipping Name (IATA)	: Hexanes
Proper Shipping Name (ADN)	: HEXANES
Proper Shipping Name (RID)	: HEXANES
Transport document description (ADR)	: UN 1208 HEXANES, 3, II, (D/E)
Transport document description (IMDG)	: UN 1208 HEXANES, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1208 Hexanes, 3, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) Danger labels (ADR)



IMDG

Transport hazard class(es) (IMDG) Danger labels (IMDG)



: 3

: 3

: 11

: 11

: 11

:

ΙΑΤΑ

Transport hazard class(es) (IATA) Danger labels (IATA)

ADN

Transport hazard class(es) (ADN) Danger labels (ADN)

RID

Transport hazard class(es) (RID) Danger labels (RID)

: 3 : 3





14.4. Packing group

Packing group (ADR) Packing group (IMDG) Packing group (IATA)

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Packing group (ADN)	: 11
Packing group (RID)	: 11
14.5. Environmental hazards	
Dangerous for the environment	: Yes
Marine pollutant	: Yes
Other information	: No supplementary information available
44.0. Openial processions for second	
14.6. Special precautions for user	
Overland transport	
Classification code (ADR)	: F1
Limited quantities (ADR)	: 11
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR) Portable tank and bulk container special provisions	. 14 : TP1
(ADR)	
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2, S20
Hazard identification number (Kemler No.)	: 33
Orange plates	22
	33
	1208
Tunnel restriction code (ADR)	: D/E
EAC code	: 3YE
Transport by see	
Transport by sea Limited quantities (IMDG)	: 1L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: E
Properties and observations (IMDG)	: Colourless, volatile liquids with a faint odour. Explosive limits: 1.1% to 7.5% n-HEXANE:
	flashpoint -22°C c.c. boiling point 69°C. NEOHEXANE: flashpoint -48°C c.c. boiling point
	50°C. Immiscible with water. Slightly irritating to skin, eyes and mucous membranes.
MFAG-No	: 128
Air transport	
PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
ERG code (IATA)	: 3H
Inland waterway transport	
Inland waterway transport Classification code (ADN)	: F1
Limited quantities (ADN)	: TL
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01

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Number of blue cones/lights (ADN)	:	1
Rail transport		
Classification code (RID)	:	F1
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions	:	TP1
(RID)		
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE7
Hazard identification number (RID)	:	33

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	n-HEXANE 99% FOR SYNTHESIS
3(b)	n-HEXANE 99% FOR SYNTHESIS
3(c)	n-HEXANE 99% FOR SYNTHESIS
40.	n-HEXANE 99% FOR SYNTHESIS

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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15.1.2. National regulations

France

Occupational diseases		
Code	Description	
RG 59	Occupational poisoning by hexane	
Germany		
Water hazard class (WGK) Hazardous Incident Ordinan	ce (12. BImSchV)	 WGK 2, Significantly hazardous to water (Classification according to AwSV; ID No. 124). Is not subject of the Hazardous Incident Ordinance (12. BImSchV)
Netherlands		
SZW-lijst van kankerverwekt SZW-lijst van mutagene stof SZW-lijst van reprotoxische SZW-lijst van reprotoxische Vruchtbaarheid	fen stoffen – Borstvoeding stoffen –	 The substance is not listed The substance is not listed The substance is not listed n-HEXANE 99% is listed
SZW-lijst van reprotoxische	stoffen – Ontwikkeling	: The substance is not listed
Denmark		
Classification remarks Danish National Regulations	5	 Emergency management guidelines for the storage of flammable liquids must be followed Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	

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Abbreviations and acronyms:		
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	
VOC	Volatile Organic Compounds	
CAS-No.	Chemical Abstract Service number	
N.O.S.	Not Otherwise Specified	
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements:	
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
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
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

Safety Data Sheet (SDS), EU

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.