

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision
Supersedes Version

5
4.00***

Revision Date
Issuing date

24-Jan-2023
24-Jan-2023

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

1.1. Product identifier

Identification of the substance/preparation

Zorgol 8

Chemical Name
CAS-No
EC No.

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues
68609-68-7
271-832-1

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

Identified uses Formulation***
Uses advised against None***

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification

OQ Chemicals GmbH
Rheinpromenade 4A
D-40789 Monheim
Germany

Product Information

Product Stewardship
FAX: +49 (0)208 693 2053
email: sc.psq@oq.com

1.4. Emergency telephone number

Emergency telephone number +44 (0) 1235 239 670 (UK)
available 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This substance is classified based on Directive 1272/2008/EC and its amendments (CLP Regulation)

Skin corrosion/irritation Category 2, H315
Environmental hazard Aquatic Chronic 3; H412

Additional information

For full text of Hazard- and EU Hazard-statements see SECTION 16.

2.2. Label elements

Labelling according to Regulation 1272/2008/EC and its amendments (CLP Regulation).

Hazard pictograms

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5



Signal word

Warning

Hazard statements

H315: Causes skin irritation.
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements

P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P332 + P313: If skin irritation occurs: Get medical advice/ attention.
P501: Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

None known

PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)***

Endocrine disrupting assessments

The substance is not listed on the candidate list according to Art. 59(1), REACH. The substance was not assessed as having endocrine disrupting properties according to regulation 2017/2100/EU or 2018/605/EU.

SECTION 3: Composition / information on ingredients

3.1. Substances

Component	CAS-No	1272/2008/EC	Concentration (%)
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues	68609-68-7	Skin Irrit. 2; H315 Aquatic Chronic 3; H412	100

For full text of Hazard- and EU Hazard-statements see SECTION 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Keep at rest. Aerate with fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Skin

Wash off immediately with soap and plenty of water. When symptoms persist or in all cases of doubt seek medical advice.

Eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Obtain medical attention.

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

Ingestion

Do not induce vomiting without medical advice. Call a physician immediately.

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

Main symptoms

shortness of breath.

Special hazard

Lung oedema, Lung irritation.

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

General advice

Remove contaminated, soaked clothing immediately and dispose of safely. First aider needs to protect himself.

Treat symptomatically. In case of lung irritation, first treatment with cortisone spray.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water spray

Unsuitable Extinguishing Media

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Under conditions giving incomplete combustion, hazardous gases produced may consist of:

carbon monoxide (CO)

carbon dioxide (CO₂)

Combustion gases of organic materials must in principle be graded as inhalation poisons

Vapours are heavier than air and may spread along floors

Vapour/air-mixtures are explosive at intense warming***

5.3. Advice for firefighters

Special protective equipment for firefighters

Fire fighter protection should include a self-contained breathing apparatus (NIOSH-approved or EN 133) and full fire-fighting turn out gear.

Precautions for firefighting

Cool containers / tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Dike and collect water used to fight fire. Water run-off can cause environmental damage. Keep people away from and upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: For personal protective equipment see section 8. Avoid contact with skin and eyes. Avoid breathing vapors or mists. Keep people away from and upwind of spill/leak. Ensure adequate

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

ventilation, especially in confined areas. Keep away from heat and sources of ignition.
For emergency responders: Personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage. Do not discharge product into the aquatic environment without pretreatment (biological treatment plant). Water runoff can cause environmental damage.

6.3. Methods and material for containment and cleaning up

Methods for containment

Stop the flow of material, if possible without risk. Dike spilled material, where this is possible.

Methods for cleaning up

Soak up with inert absorbent material. DO NOT use combustible materials such as sawdust. Keep in suitable, closed containers for disposal. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

6.4. Reference to other sections

For personal protective equipment see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Further info may be available in the appropriate Exposure scenarios in the annex to this SDS.***

Advice on safe handling

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Provide sufficient air exchange and/or exhaust in work rooms.

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Advice on the protection of the environment

See Section 8: Environmental exposure controls.

Incompatible products

acids and bases
amines
oxidizing agents

7.2. Conditions for safe storage, including any incompatibilities

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). In case of fire, emergency cooling with water spray should be available. Ground and bond containers when transferring material.

Technical measures/Storage conditions

Keep containers tightly closed in a cool, well-ventilated place. Handle and open container with care. Handle under nitrogen, protect from moisture.

Temperature class

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

T3

7.3. Specific end use(s)

Formulation***

For specific end use information see the annex of this safety data sheet***

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Exposure limits European Union

No exposure limits established

Exposure limits UK

No exposure limits established.

DNEL & PNEC

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7 Workers

DN(M)EL - long-term exposure - systemic effects - Inhalation	66,1 mg/m ³
DN(M)EL - acute / short-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - long-term exposure - local effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - local effects - Inhalation	Low hazard (no threshold derived)
DN(M)EL - long-term exposure - systemic effects - Dermal	18,75 mg/kg bw/day
DN(M)EL - acute / short-term exposure - systemic effects - Dermal	Low hazard (no threshold derived)
DN(M)EL - long-term exposure - local effects - Dermal	Low hazard (no threshold derived)
DN(M)EL - acute / short-term exposure - local effects - Dermal	Low hazard (no threshold derived)
DN(M)EL - local effects - eyes	No hazard identified

General population

DN(M)EL - long-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Inhalation	No hazard identified
DN(M)EL - long-term exposure - local effects - Inhalation	No hazard identified
DN(M)EL - acute / short-term exposure - local effects - Inhalation	No hazard identified
DN(M)EL - long-term exposure - systemic effects - Dermal	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Dermal	No hazard identified
DN(M)EL - long-term exposure - local effects - Dermal	No hazard identified
DN(M)EL - acute / short-term exposure - local effects - Dermal	No hazard identified
DN(M)EL - long-term exposure - systemic effects - Oral	No hazard identified
DN(M)EL - acute / short-term exposure - systemic effects - Oral	No hazard identified
DN(M)EL - local effects - eyes	No hazard identified

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

Environment

PNEC aqua - freshwater	0,034 mg/l
PNEC aqua - marine water	0,0034 mg/l
PNEC aqua - intermittent releases	0,34 mg/l
PNEC STP	16,55 mg/l
PNEC sediment - freshwater	0,364 mg/kg
PNEC sediment - marine water	0,0364 mg/kg
PNEC soil	0,0514 mg/kg
Secondary poisoning	PNEC oral: 33,3 mg/kg
PNEC oral	166,67*** mg/kg Food***

8.2. Exposure controls

Special adaptations (REACH)

Not applicable.***

Appropriate Engineering controls

General or dilution ventilation is frequently insufficient as the sole means of controlling employee exposure. Local ventilation is usually preferred. Explosion-proof equipment (for example fans, switches, and grounded ducts) should be used in mechanical ventilation systems.

Personal protective equipment

General industrial hygiene practice

Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures

When using, do not eat, drink or smoke. Take off all contaminated clothing immediately. Wash hands before breaks and immediately after handling the product.

Eye protection

Tightly fitting safety goggles. In addition to goggles, wear a face shield if there is a reasonable chance for splash to the face.

Equipment should conform to EN 166

Hand protection

Wear protective gloves. Recommendations are listed below. Other protective material may be used, depending on the situation, if adequate degradation and permeation data is available. If other chemicals are used in conjunction with this chemical, material selection should be based on protection for all chemicals present.

Suitable material	nitrile rubber
Evaluation	according to EN 374: level 6
Glove thickness	approx 0,55 mm
Break through time	> 480 min
Suitable material	polyvinylchloride
Evaluation	Information derived from practical experience
Glove thickness	approx 0,8 mm

Skin and body protection

Impervious clothing. Wear face-shield and protective suit for abnormal processing problems.

Environmental exposure controls

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

If possible use in closed systems. If leakage can not be prevented, the substance needs to be suck off at the emersion point, if possible without danger. Observe the exposure limits, clean exhaust air if needed. If recycling is not practicable, dispose of in compliance with local regulations. Inform the responsible authorities in case of leakage into the atmosphere, or of entry into waterways, soil or drains.

Additional advice

Further details on substance data can be found in the registration dossier under the following link:
<http://echa.europa.eu/information-on-chemicals/registered-substances>.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid				
Colour	light brown				
Odour	slight				
Odour threshold	No data available				
Melting point/freezing point	< -20 °C				
Method	OECD 102				
Boiling point or initial boiling point and boiling range	201 - 365 °C @ 1013 hPa				
Method	OECD 103				
Flammability	Even if not classified as flammable, the product is capable of catching fire or being set on fire.***				
Lower explosion limit	No data available				
Upper explosion limit	No data available				
Flash point	96 °C @ 1013 hPa				
Method	ISO 2719				
Autoignition temperature	250 °C @ 1013 hPa				
Method	EU A.15				
Decomposition temperature	No data available				
pH	7 (0,79 g/l in water @ 20 °C (68 °F))				
Kinematic Viscosity	36,79 mm ² /s @ 20 °C				
Method	OECD 114				
Solubility	0,79 g/l @ 20 °C, in water, OECD 105				
Partition coefficient n-octanol/water (log value)	1,6 @ 23 °C (73,4 °F) OECD 107				
Vapour pressure					
Values [hPa]	Values [kPa]	Values [atm]	@ °C	@ °F	Method
0,19***	0,019***	< 0,01***	25***	77***	
0,78***	0,078***	< 0,01***	50***	122***	
Density and/or relative density					
Values	@ °C	@ °F		Method	
0,93	20	68		OECD 109	
Relative vapour density	No data available				
Particle characteristics	not applicable				

9.2. Other information

Explosive properties	not explosive according to EU A.14***
Oxidizing properties	Does not apply, substance is not oxidising. There are no chemical groups associated with oxidizing properties
Surface tension	42,67 mN/m @ 20 °C (68 °F), EU A.5
Evaporation rate	No data available

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

No data available.

SECTION 10: Stability and Reactivity

10.1. Reactivity

The reactivity of the product corresponds to the typical reactivity shown by the substance group as described in any text book on organic chemistry.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Avoid contact with heat, sparks, open flame and static discharge. Avoid any source of ignition.

10.5. Incompatible materials

bases, amines, acids, oxidizing agents.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Likely routes of exposure Ingestion, Inhalation, Eye contact, Skin contact

Acute toxicity				
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)				
Routes of Exposure	Endpoint	Values	Species	Method
Oral	LD50	> 5000 mg/kg	rat, male/female	OECD 401
Inhalative	LC50	> 5,4 mg/l (4h) Dust/mist/aerosol***	rat, male/female	OECD 403

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

Assessment

Based on available data, the classification criteria are not met for:

Acute oral toxicity

Acute inhalation toxicity

For acute dermal toxicity, no data are available

Irritation and corrosion

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)				
Target Organ Effects	Species	Result	Method	
Skin	rabbit	Moderate skin irritation	OECD 404	

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

Eyes	rabbit	Mild eye irritation	OECD 405	
------	--------	---------------------	----------	--

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

Assessment

The available data lead to the classification given in section 2
For respiratory irritation, no data are available

Sensitization				
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)				
Target Organ Effects	Species	Evaluation	Method	
Skin	guinea pig male	not sensitizing	OECD 406	

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

Assessment

Based on available data, the classification criteria are not met for:
Skin sensitization
For respiratory sensitization, no data are available

Subacute, subchronic and prolonged toxicity				
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)				
Type	Dose	Species	Method	
Subacute toxicity	NOAEL: 1000 mg/kg/d	rat, male/female	OECD 422	Oral
Subchronic toxicity	NOEL: ca. 750 mg/m ³ /d (90 d)***	rat, male/female	OECD 408	Oral

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

Assessment

Based on available data, the classification criteria are not met for:
STOT RE

Carcinogenicity, Mutagenicity, Reproductive toxicity					
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)					
Type	Dose	Species	Evaluation	Method	
Mutagenicity		V79 cells, Chinese hamster	negative	OECD 473 (Chromosomal Aberration)	
Mutagenicity		Salmonella typhimurium Escherichia coli	negative	OECD 471 (Ames)	
Mutagenicity		CHO (Chinese Hamster Ovary) cells	negative	OECD 476 (Mammalian Gene Mutation)	
Reproductive toxicity	NOAEL 1000 mg/kg/d	rat, parental		OECD 422, Oral	
Reproductive toxicity	NOAEL 1000 mg/kg/d	rat, 1. Generation, male/female		OECD 422, Oral	
Developmental Toxicity	NOAEL 1000 mg/kg/d	rat		OECD 422, Oral	Maternal toxicity
Developmental Toxicity	NOEL 1000 mg/kg/d	rat		OECD 422, Oral	Developmental toxicity, Teratogenicity
Developmental Toxicity	NOAEL >= 300	rat		OECD 414, Oral	Maternal toxicity

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

	mg/kg/d				
Developmental Toxicity	NOAEL \geq 1000 mg/kg/d	rat		OECD 414, Oral	Fetal toxicity
Reproductive toxicity***	NOAEL 1000 mg/kg/d***	rat, parental***		OECD 443 Oral***	
Reproductive toxicity***	NOAEL 1000 mg/kg/d***	rat, 1. Generation, male/female***		OECD 443 Oral***	

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

CMR Classification

The available data on CMR properties are summarized in the table above. They do not indicate a classification into categories 1A or 1B

Evaluation

In vitro tests did not show mutagenic effects

Did not show reprotoxic effects in animal experiments

No cancer study was conducted

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

Main symptoms

shortness of breath.

Target Organ Systemic Toxicant - Single exposure

Based on available data, the classification criteria are not met for:

STOT SE

Target Organ Systemic Toxicant - Repeated exposure

Based on available data, the classification criteria are not met for:

STOT RE

Aspiration toxicity

no data available

11.2. Information on other hazards

Endocrine disrupting properties

The substance has not been identified as having endocrine disrupting properties in accordance with section 2.3.

Note

Handle in accordance with good industrial hygiene and safety practice. Further details on substance data can be found in the registration dossier under the following link:

<http://echa.europa.eu/information-on-chemicals/registered-substances>.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity			
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)			
Species	Exposure time	Dose	Method
Danio rerio (Zebra fish)	96h	LC50: 50 mg/l	OECD 203
Daphnia magna (Water flea)	48h	EC50: > 38 mg/l	OECD 202
Desmodesmus subspicatus	72h	EC50: > 34 mg/l (Growth rate)	OECD 201
Desmodesmus subspicatus	72h	EC50: 35 mg/l (Biomass)	OECD 201
Activated sludge (domestic)	3 h	EC50: 1655 mg/l	OECD 209

Long term toxicity

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)				
Type	Species	Dose	Method	
Mortality	Scenedesmus subspicatus	NOEC: 19 mg/l (3d) Growth rate	OECD 201	

12.2. Persistence and degradability

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

Biodegradation

30 - 35 % (29 d), activated sludge (domestic), non-adapted, aerobic, OECD 301 B.

Abiotic Degradation		
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)		
Type	Result	Method
Hydrolysis	No data available	
Photolysis	not expected	

12.3. Bioaccumulative potential

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)		
Type	Result	Method
log Pow	1,6 @ 23 °C (73,4 °F)	measured, OECD 107
BCF	No data available	

12.4. Mobility in soil

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues (68609-68-7)		
Type	Result	Method
Adsorption/Desorption	no data available	
Surface tension	42,67 mN/m @ 20 °C (68 °F)	EU A.5
Distribution to environmental compartments	no data available	

12.5. Results of PBT and vPvB assessment

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

PBT and vPvB assessment

Not required This substance is not considered to be persistent, bioaccumulating nor toxic (PBT), nor very persistent nor very bioaccumulating (vPvB)***

12.6. Endocrine disrupting properties

The substance has not been identified as having endocrine disrupting properties in accordance with section 2.3.

12.7. Other adverse effects

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

No data available

Note

Avoid release to the environment.

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product Information

Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Hazardous waste according to European Waste Catalogue (EWC)

Uncleaned empty packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

SECTION 14: Transport information

Section 14.1 - 14.6

<u>ADR/RID</u>	Not restricted
<u>ADN</u>	ADN Container Not restricted
<u>ADN</u>	ADN Tanker
14.1. UN number or ID number	ID 9006
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Transport hazard class(es)	9
Subsidiary Risk	N2, F
14.4. Packing group	-
14.5. Environmental hazards	Fish and tree
14.6. Special precautions for user	no data available
<u>ICAO-TI / IATA-DGR</u>	Not restricted
<u>IMDG</u>	Not restricted
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

Regulation 1272/2008, Annex VI

not listed

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

DI 2012/18/EU (Seveso III)

Category not subject

DI 1999/13/EC (VOC Guideline)

Component	Status
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues CAS: 68609-68-7	regulated

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019 No. 758

Component	Status
1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues CAS: 68609-68-7	The substance will not be pre-registered

For details and further information please refer to the original regulation.

International Inventories

1-Hexanol, 2-ethyl-, manufacture of, by-products from, distillation residues, CAS: 68609-68-7

AICS (AU)
DSL (CA)
IECSC (CN)
EC-No. 2718321 (EU)
KECI 2011-3-5023 (KR)
PICCS (PH)
TSCA (US)
NZIoC (NZ)
TCSI (TW)

National regulatory information Great Britain

Releases to air (Pollution Inventory Substances)

not subject

Releases to water (Pollution Inventory Substances)

not subject

Releases to sewer (Pollution Inventory Substances)

not subject

For details and further information please refer to the original regulation

15.2. Chemical safety assessment

The Chemical Safety Report (CSR) has been generated. For Exposure Scenarios see the annex.***

SECTION 16: Other information

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

H315: Causes skin irritation.

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

H412: Harmful to aquatic life with long lasting effects.

Abbreviations

A table of terms and abbreviations can be found under the following link:
http://echa.europa.eu/documents/10162/13632/information_requirements_r20_en.pdf

Training advice

For effective first-aid, special training / education is needed.

Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on OQ owned data and public sources deemed valid or acceptable. The absence of data elements required by OSHA, ANSI or Annex II, Regulation 1907/2006/EC indicates, that no data meeting these requirements is available.

Further information for the safety data sheet

Changes against the previous version are marked by ***. Observe national and local legal requirements. For more information, other material safety data sheets or technical data sheets please consult the OQ homepage (www.chemicals.oq.com).

Disclaimer

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. OQ Chemicals makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

End of Safety Data Sheet

Annex to the extended Safety Data Sheet (eSDS) ***

Operational conditions and risk management measures

Avoid direct contact with the chemical/the product/the preparation by establishing organisational measures
Containment of source except for short term exposure (e.g. taking sample)
Good standard of personal hygiene
Ensure all equipment well maintained
Workers should be warned to avoid skin and eye contact, to wash off any skin contamination immediately and to report skin/eye problems that may develop
Good standard of general ventilation
Avoidance of contact with contaminated tools and objects
Regular cleaning of work area
Supervision in place to check that the RMMs in place are being used correctly and OCs followed.
Skin coverage with appropriate barrier material based on potential for contact with the chemicals
Avoid inhalation of the product
Avoid contact with eyes
Any measure to eliminate exposure should be considered***

1* Formulation & (re)packing of substances and mixtures*****

Number of the ES 1***

Short title of the exposure scenario

Formulation & (re)packing of substances and mixtures***

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

List of use descriptors ***

Sector of uses [SU]

SU3: Industrial uses: Uses of substances as such or in preparations at industrial sites***

Process categories [PROC]

PROC3: Use in closed batch process (synthesis or formulation)

PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC15: Use as laboratory reagent***

Environmental release categories [ERC]

ERC2: Formulation of preparations (mixtures)***

Product characteristics

Refer to attached safety data sheets***

Processes and activities covered by the exposure scenario

Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tableting, compression, pelletisation, extrusion, large and small scale packing, sampling, maintenance and associated laboratory activities.***

Further explanations

assessment tool used:

ECETOC TRA

Covers percentage substance in the product up to 100 % (unless stated differently)

Assumes an advanced standard of occupational Health and Safety Management System***

Contributing Scenarios ***

Number of the contributing scenario

1***

Contributing exposure scenario controlling environmental exposure for

ERC 2***

Product characteristics

Covers percentage substance in the product up to 100 % (unless stated differently), Liquid, vapour pressure > 10 Pa.***

Amounts used

Daily amount per site: 70 to

Annual amount per site: 900 to***

Environment factors not influenced by risk management

River flow rate: 1.38E-06 m³/d***

Other given operational conditions affecting environmental exposure

Emission days (days/year): 70

Continuous process***

Technical conditions and measures at process level (source) to prevent release

Air:

Exhaust air scrubber

Water:

Onsite wastewater treatment required.

Oil-water separation

Incineration

Remarks

Use in closed process

Automated task

Transfer via enclosed lines.

Limit release rate to waste water to (kg/day):

12.9

Limit release rate to air to (kg/day):

12.9

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

Limit release rate to soil to (kg/day):

0***

Conditions and measures related to municipal sewage treatment plant

Size of municipal sewage system/ treatment plant (m³/d): 2.68E+05***

Conditions and measures related to external treatment of waste for disposal

No waste from process.***

Number of the contributing scenario

2***

Contributing exposure scenario controlling worker exposure for PROC 3***

Further specification

Assessment tool used: ECETOC TRA***

Product characteristics

Liquid, vapour pressure > 10 Pa***

Frequency and duration of use

8 h (full shift)

70 days per year***

Other given operational conditions affecting workers exposure

All personnel is trained

Wearing of protective clothing/personal protective equipment is mandatory***

Technical conditions and measures at process level (source) to prevent release

Transfer via enclosed lines

Use in closed process

Automated task***

Organisational measures to prevent /limit releases, dispersion and exposure

Training for staff on good practice

Ensure the ventilation system is regularly maintained and tested

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking.

Keep container tightly closed

Ensure control measures are regularly inspected and maintained.

Clear spills immediately

Clean equipment and the work area every day***

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Skin coverage with appropriate barrier material based on potential for contact with the chemicals. For further specification, refer to section 8 of the SDS.***

Number of the contributing scenario

3***

Contributing exposure scenario controlling worker exposure for PROC 8b***

Further specification

Assessment tool used: ECETOC TRA***

Product characteristics

Liquid, vapour pressure > 10 Pa***

Frequency and duration of use

4 h (half shift)

70 days per year***

Other given operational conditions affecting workers exposure

All personnel is trained

Wearing of protective clothing/personal protective equipment is mandatory***

Technical conditions and measures at process level (source) to prevent release

Transfer via enclosed lines

Use in closed process

Automated task***

Organisational measures to prevent /limit releases, dispersion and exposure

Training for staff on good practice

Ensure the ventilation system is regularly maintained and tested

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking.

Keep container tightly closed

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

Ensure control measures are regularly inspected and maintained.

Clear spills immediately

Clean equipment and the work area every day***

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Skin coverage with appropriate barrier material based on potential for contact with the chemicals. For further specification, refer to section 8 of the SDS.***

Number of the contributing scenario

4***

Contributing exposure scenario controlling worker exposure for PROC 15***

Further specification

Assessment tool used: ECETOC TRA***

Product characteristics

Liquid, vapour pressure > 10 Pa***

Frequency and duration of use

8 h (full shift)

70 days per year***

Other given operational conditions affecting workers exposure

All personnel is trained

Wearing of protective clothing/personal protective equipment is mandatory***

Technical conditions and measures at process level (source) to prevent release

Transfer via enclosed lines

Use in closed process

Automated task***

Organisational measures to prevent /limit releases, dispersion and exposure

Training for staff on good practice

Ensure the ventilation system is regularly maintained and tested

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking.

Keep container tightly closed

Ensure control measures are regularly inspected and maintained.

Clear spills immediately

Clean equipment and the work area every day***

Conditions and measures related to personal protection, hygiene and health evaluation

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Skin coverage with appropriate barrier material based on potential for contact with the chemicals. For further specification, refer to section 8 of the SDS.***

Environment

PEC = predicted environmental concentration (local+regional); RCR = risk characterisation ratio***

Fresh Water (Pelagic)	PEC: 5.13E-04 mg/l; RCR: 0.0151***
Fresh Water (Sediment)	PEC: 1.20E-03 mg/kg dw; RCR: 0.0151***
Marine Water (Pelagic)	PEC: 4.82E-04 mg/l; RCR: 0.142***
Marine Water (Sediment)	PEC: 1.12E-03 mg/kg dw; RCR: 0.141***
Agricultural Soil	PEC: 3.93E-03 mg/kg dw; RCR: 0.0764***
Sewage Treatment Plant (Effluent)	PEC: 2.99E-03 mg/l; RCR: 1.81E-04***

Human exposure prediction (oral, dermal, inhalative)

EE(inhal): Estimated inhalative long-term exposure [mg/m³]; EE(derm): Estimated dermal long-term exposure [mg/kg b.w./d].***

Proc 3	EE(inhal): 32.5; EE(derm): 0.034***
Proc 8b	EE(inhal): 32.5; EE(derm): 0.686***
Proc 15	EE(inhal): 54.167; EE(derm): 0.034***

associated uses:

Other combinations of operational conditions may also be safe. Please contact OQ in case your local operational

SAFETY DATA SHEET

according to REACH Regulation (EC) No. 1907/2006, as amended by UK REACH Regulations SI 2019/758



Zorgol 8
10730

Version / Revision 5

conditions differ from the ones described above and you are unsure if they are also safe***