

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Therminol 66**

Substance name Terphenyl, hydrogenated
REACH registration no. 01-2119488183-33

Identification numbers

CAS no. 61788-32-7
EC no. 262-967-7

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

heat transfer fluids

Uses advised against

No data available.

Reference to relevant exposure scenarios

For an overview of the exact titles of the relevant exposure scenarios please refer to section 16 of this SDS.

1.3 Details of the supplier of the safety data sheet**Address**

Krahn Chemie Deutschland GmbH
Grimm 10
20457 Hamburg
Deutschland

Telephone no. +49 40 320 92-0
Fax no. +49 40 320 92-322

Information provided by / telephone

+49 40 320 92-0

Advice on Safety Data Sheet

msds@krahn.eu

1.4 Emergency telephone number

For medical advice (in German and English):

+49 551 192 40 (Giftinformationszentrum Nord)

In case of transport incidents and other emergencies:

+44 (0)1235 239 670 (NCEC, National Chemical Emergency Centre)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Aquatic Chronic 2; H411

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Product identifier**

61788-32-7 (Terphenyl, hydrogenated)

Hazard pictograms

GHS09

Signal word

-

Hazard statement(s)

H411

Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

P273	Avoid release to the environment.
P391	Collect spillage.
P501	Dispose of contents/container to an approved waste facility.

2.3 Other hazards

PBT assessment

One or more components of this product are classified as PBT.

vPvB assessment

One or more components of this product are classified as vPvB.

SECTION 3: Composition/information on ingredients**3.1 Substances****Chemical characterization**

Substance name Terphenyl, hydrogenated

Identification numbers

CAS no. 61788-32-7

EC no. 262-967-7

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area. Irregular breathing/no breathing: artificial respiration.

After skin contact

When in contact with the skin, clean with soap and water.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes).

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. Call a doctor immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

Poisonous symptoms can first be observed after several hours, therefore medical observation for at least 48 hours is necessary.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide; Dry chemical extinguisher; Water spray jet; Foam

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixtureIn the event of fire, the following can be released: Carbon monoxide (CO); Carbon dioxide (CO₂)**5.3 Advice for firefighters**

Use self-contained breathing apparatus. Wear protective clothing. Cool endangered containers with water spray jet. Run-off water from fire fighting must not be discharged into drains or enter surface water. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Do not inhale vapours. High risk of slipping due to leakage/spillage of product.

For emergency responders

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g., sand, kieselguhr, universal binder). Send in suitable containers for recovery or disposal.

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

Provide good ventilation at the work area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn.

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Avoid contact with eyes and skin. Provide eye wash fountain in work area. Do not inhale vapours. Remove soiled or soaked clothing immediately.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Containers which are opened must be carefully closed and kept upright to prevent leakage. Keep only in the original container.

Incompatible products

Do not store together with: oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values**

No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
	2017/164/EU		
	Terphenyl, hydrogenated		
	WEL short-term (15 min reference period)	48 mg/m ³	5 ppm
	WEL long-term (8-hr TWA reference period)	19 mg/m ³	2 ppm
	List of approved workplace exposure limits (WELs) / EH40		
	Terphenyl, hydrogenated		
	WEL short-term (15 min reference period)	48 mg/m ³	5 ppm
	WEL long-term (8-hr TWA reference period)	19 mg/m ³	2 ppm

DNEL, DMEL and PNEC values**DNEL values (worker)**

No	Substance name	Route of exposure	Exposure time	Effect	CAS / EC no
					Value
1	Terphenyl, hydrogenated				61788-32-7 262-967-7
	dermal	Long term (chronic)	systemic		46.3 mg/kg/day
	inhalative	Long term (chronic)	systemic		8.38 mg/m ³

DNEL value (consumer)

No	Substance name	Route of exposure	Exposure time	Effect	CAS / EC no
					Value
1	Terphenyl, hydrogenated				61788-32-7 262-967-7
	oral	Long term (chronic)	systemic		0.3 mg/kg/day
	dermal	Long term (chronic)	systemic		27.8 mg/kg/day
	dermal	Long term (chronic)	local		0.123 mg/cm ²

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

	inhalative	Long term (chronic)	systemic	2.5	mg/m ³
	inhalative	Long term (chronic)	local	25	mg/m ³

PNEC values

No	Substance name	ecological compartment	Type	CAS / EC no	Value
1	Terphenyl, hydrogenated			61788-32-7 262-967-7	
	water		fresh water	2	µg/L
	water		marine water	0.2	µg/L
	water		Aqua intermittent	13.4	µg/L
	water		fresh water sediment	63.2	mg/kg
	with reference to: dry weight				
	water		marine water sediment	6.32	mg/kg
	with reference to: dry weight				
	soil		-	12.60	mg/kg
	with reference to: dry weight				
	sewage treatment plant		-	10.30	mg/L
	secondary poisoning		-	2.22	mg/kg
	with reference to: food				

8.2 Exposure controls**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection

Safety glasses (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. Heat-resistant gloves when using hot material (EN 407).

Other

Normal chemical work clothing. Make sure when selecting personal protective equipment (PPE), that it is suitable for the activity, workplace conditions in which it will be used according to the applying European CEN standards and upon consultation with the PPE supplier.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

State of aggregation			
liquid			
Form/Colour			
liquid, clear			
colourless; light yellow			
Odour			
characteristic			
pH value			
no data available			
Boiling point / boiling range			
Value	359	°C	
Reference pressure	1013	hPa	
Melting point/freezing point			
Value	<	-24	°C
Decomposition temperature			
No data available			

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

Flash point			
Value	170	°C	
Method	Pensky-Martens closed cup		
Value	184	°C	
Method	Cleveland open cup		
Ignition temperature			
No data available			
Auto-ignition temperature			
Value	374	°C	
Method	ASTM E 659		
Flammability			
Not relevant			
Lower explosion limit			
No data available			
Upper explosion limit			
No data available			
Vapour pressure			
Value	0.0174	Pa	
Reference temperature	20	°C	
Relative vapour density			
No data available			
Relative density			
Value	1.013		
Reference temperature	20	°C	
Density			
No data available			
Solubility in water			
Value	0.061	mg/l	
Reference temperature	20	°C	
Solubility			
No data available			
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
	log Pow	>	6.5
	Method	OECD 117	
	Source	ECHA	
Viscosity			
Value	29.6	mm ² /s	
Reference temperature	40	°C	
Type	kinematic		
Value	133	mm ² /s	
Reference temperature	20	°C	
Type	kinematic		
Value	3.8	mm ² /s	
Reference temperature	100	°C	
Type	kinematic		
Particle characteristics			
No data available			

9.2 Other information

Other information
No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
LD50	>	10000	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		
Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
LD50	>	2000	mg/kg bodyweight
Species	rabbit		
Method	OECD 402		
Source	ECHA		
Acute inhalational toxicity			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
LC50	>	4.7	mg/l
Duration of exposure		4	h
State of aggregation	Dust/mist		
Species	rat		
Method	OECD 403		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
Duration of exposure		24	h
Species	rat		
Source	ECHA		
Evaluation	non-irritant		
Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
Species	rabbit		
Source	ECHA		
Evaluation	non-irritant		
Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
Route of exposure	Skin		
Species	Human		
Source	ECHA		
Evaluation	non-sensitizing		
Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Reproduction toxicity			
No data available			
Carcinogenicity			

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
STOT - single exposure			
No data available			
STOT - repeated exposure			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Aspiration hazard			
No data available			
Delayed and immediate effects as well as chronic effects from short and long-term exposure			
Contact with hot material may cause thermal burns.			

11.2 Information on other hazards**Endocrine disrupting properties**

No data available.

Other information

No data available.

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
LC50	>	1000	mg/l
Duration of exposure		96	h
Species	Oncorhynchus mykiss		
Toxicity to fish (chronic)			
No data available			
Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
EC50	>	1	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
NOELR		1	mg/l
Duration of exposure		21	day(s)
Species	Daphnia magna		
Method	OECD 211		
Source	ECHA		
Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
EC50		56	mg/l
Duration of exposure		96	h
Species	Pseudokirchneriella subcapitata		
Toxicity to algae (chronic)			
No data available			
Bacteria toxicity			
No data available			

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	Substance name	CAS no.	EC no.

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GB

1	Terphenyl, hydrogenated	61788-32-7	262-967-7
BCF	700	-	5200
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7
log Pow	>	6.5	
Method	OECD 117		
Source	ECHA		

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	One or more components of this product are classified as PBT.
vPvB assessment	One or more components of this product are classified as vPvB.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 Transport ADR/RID/ADN**

Class	9
Classification code	M6
Packing group	III
Hazard identification no.	90
UN number	UN3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Terphenyl, hydrogenated
Tunnel restriction code	-
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.2 Transport IMDG

Class	9
Packing group	III
UN number	UN3082
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical name	Terphenyl, hydrogenated
EmS	F-A, S-F
Label	9
Marine pollutant mark	Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

Class	9
Packing group	III
UN number	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Technical name	Terphenyl, hydrogenated
Label	9

Trade name: Therminol 66**Product no.:** 5007892**Current version :** 3.5.0, issued: 21.10.2021**Replaced version:** 3.4.0, issued: 11.01.2021**Region:** GBEnvironmentally hazardous
substance mark

Symbol "fish and tree"

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulations****Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

In accordance with the REACH regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

The substance meets the criteria in Article 57 in association with Article 59 of the REACH regulation (EC) 1907/2006 and is placed on the list of candidates considered for inclusion in annex XIV (substances subject to Authorisation).

No	Substance name	CAS no.	EC no.
1	Terphenyl, hydrogenated	61788-32-7	262-967-7

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. No 3

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category: E2

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)

Comments not applicable

National regulations**National chemical inventories**

USA (TSCA)	listed
DSL/NDL (Canada)	DSL listed
ENCS (Japan)	ISHL listed
ECL (Korea)	listed
AICS (Australia)	listed
IECSC / NEPA (China)	listed
PICCS (Philippines)	listed
CSNN (Taiwan)	TCSI listed

15.2 Chemical safety assessment

A chemical safety assessment has been carried out for this substance.

SECTION 16: Other information**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

List of existing exposition scenarios

ES001 Exposure scenario/s of the manufacturer

Creation of the safety data sheet

UMCO GmbH

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Tel.: +49 40 / 555 546 300 Fax: +49 40 / 555 546 357 e-mail: umco@umco.de

This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual

Trade name: Therminol 66

Product no.: 5007892

Current version : 3.5.0, issued: 21.10.2021

Replaced version: 3.4.0, issued: 11.01.2021

Region: GB

relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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