Thermal H350

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

1.1. Product identifier

Trade name

Thermal H350

Name of the chemical

Dibenzylbenzene, ar-methyl derivative

Article No.

8940111 5L

CAS number

53585-53-8

EC number

258-649-2

REACH registration number

01-2119488667-17

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

Relevant identified uses

Tempering fluid
Working temperature range: +50°C....+350°C

1.3. Details of the supplier of the safety data sheet

Supplier

JULABO GmbH

Address
Gerhard-Juchheim-Straße 1
77960 Seelbach
Germany

Telephone
+49(0)782351-180

Email
service.de@julabo.com

Web site
www.julabo.com

Contact person

Verkauf und technische Beratung

Email
service.de@julabo.com

1.4. Emergency telephone number
+49(0)89-19240 (24h)

Available outside office hours
No

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Classification
Reproductive toxicity, hazard category 1B
Aspiration hazard, hazard category 1
Hazardous to the aquatic environment — Chronic hazard category 1

Hazard statements
H304, H360FD, H410

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Hazard statements
H304 May be fatal if swallowed and enters airways.
H360FD May damage fertility. May damage the unborn child
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements
P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P331 Do NOT induce vomiting.
P405 Store locked up.
P501 Dispose of contents/container to .

More information

Restricted to professional users.

2.3. Other hazards

The product does not contain components that are endocrine disruptors according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% or more.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Dibenzylbenzene, Ar-methyl derivative	53585-53-8 258-649-2 01-2119488667-17 -	-	Asp. Tox. 1, Aquatic Chronic 1, Repr. 1B	H304, H360FD, H410 - M-chro=10	-

Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Consult a doctor if symptoms persist. Remove contaminated clothing and shoes immediately and clean thoroughly before reuse. When risk of unconsciousness, place and transport the victim in secured side position.

Inhalation

Provide fresh air. Remove the affected person from the danger zone.

Skin contact

IF ON SKIN: Gently wash with plenty of soap and water.

Eye contact

Remove contact lenses. Rinse the eye for 10-15 minutes under running water with the eyelids wide open while protecting the uninjured eye.

Ingestion

Consult a doctor immediately. Do not induce vomiting - risk of aspiration. Nothing may be administered to unconscious persons. Drink water in small sips. In the event of spontaneous vomiting, keep the patient's head low in a prone position to prevent vomit from entering the windpipe.

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

Ingestion with subsequent vomiting may result in aspiration into the lungs, which can lead to chemical pneumonia or asphyxiation.

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

No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray. Foam. Carbon dioxide Dry extinguishing agent

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO2).

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use self-contained breathing apparatus (insulating device). Fire residues and contaminated water must be disposed of in accordance with official regulations. Wear a protective suit. Collect contaminated extinguishing water separately and do not allow it to enter the sewage system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Observe safety regulations (see sections 7 and 8) Personal protective equipment - see section 8

6.2. Environmental precautions

Prevent the product from entering the sewage system or surface and ground water. Do not allow to enter the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Contain leaked material with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and collect for disposal according to local regulations in the containers provided (see section 13)

6.4. Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Preventive handling precautions

Personal protective equipment - see section 8

Ensure good room ventilation and, if necessary, extraction at the workplace. If the occupational exposure limit values are exceeded, suitable respiratory protective equipment must be worn. The risk when handling the product must be reduced to a minimum by applying protective and preventive measures. The work process should, as far as possible according to the state of the art, be designed in such a way that hazardous substances are not released or skin contact can be ruled out. Keep away from sources of heat and ignition. Vapors form an explosive mixture with air.

General hygiene

Keep away from food, drink and animal feeding stuffs. Do not breathe vapours. Do not smoke, eat or drink at work. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin. Remove soiled, soaked clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Keep container dry, tightly closed and store in a cool, well-ventilated place. Carefully close opened containers and store upright to prevent any leakage. Always store in containers that correspond to the original container.
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

DNEL/DMEL

Product/Substance name (CAS No./EC No.)	Type	Exposure	Value	Population	Effects
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	DNEL	Chronic (long term) Inhalation	0.66 mg/m³	Workers	Systemic
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	DNEL	Chronic (long term) Dermal	1.56 mg/kg bw/day	Workers	Systemic
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	DNEL	Chronic (long term) Inhalation	0.12 mg/m³	Consumers	Systemic
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	DNEL	Chronic (long term) Dermal	0.56 mg/kg bw/day	Workers	Systemic
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	DNEL	Chronic (long term) Oral	0.06 mg/kg bw/day	Workers	Systemic

PNEC/PEC

Product/Substance name (CAS No./EC No.)	Type	Environmental compartment	Value
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Soil	2 mg/kg dwt
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Sewage Treatment Plant	1 g/l
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Oral (Secondary Poisoning)	11.1 mg/kg food
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Marine water	0.014 µg/l
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Freshwater	0.14 µg/l
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Sediment (marine water)	0.005 mg/kg dwt
Dibenzylbenzene, Ar-methyl derivative (53585-53-8/258-649-2)	PNEC	Sediment (freshwater)	0.05 mg/kg dwt

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation (usually 10 air changes per hour). The degree of ventilation must be adapted to the conditions. If necessary, use process chambers, local exhaust systems or other structural measures to control the concentrations in the air in order to keep them below the recommended exposure limits. If no exposure limits have been set, keep concentrations in the air at an acceptable level.

Personal Protective Equipment Symbols

Eye / face protection

Use safety goggles with side protection.

Hand protection

In case of possible skin contact with the product, the use of gloves, tested according to e.g. EN 374, offers sufficient protection. The protective glove should always be tested for its workplace-specific suitability (e.g. mechanical resistance, product compatibility, antistatic properties). Follow the glove manufacturer's instructions and information on the use, storage, care and replacement of gloves. The protective gloves should be replaced immediately if they are damaged or show the first signs of wear. Design work processes in such a way that gloves do not have to be worn all the time.

Respiratory protection

If the occupational exposure limit values are exceeded, suitable respiratory protective equipment must be worn. If there are no occupational exposure limits, adequate respiratory protection measures must be taken in the event of the formation of aerosols, vapors and mists.

Environmental exposure controls

No data available.

Other

Personal protective equipment must be selected according to the workplace-specific conditions in accordance with the applicable CEN standards and in consultation with the supplier of personal protective equipment. Chemical-resistant work clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Colourless to pale yellow.

Odour
Slight odour.

Melting point / freezing point
-34 °C

Boiling point or initial boiling point and boiling range
390 °C

Flammability
No information available.

Lower and upper explosion limit
No information available.

Flash point
200 °C
Method
P/M Pensky-Martens.

Auto-ignition temperature
450 °C

Decomposition temperature
No information available.

pH
No data available

Kinematic viscosity
48 mm^2/s
Method
(20°C=

Solubility
No information available.

Water solubility
< 0.1 mg/l

Partition coefficient n-octanol/water
logPow >6 (22,6°C)

Vapour pressure
< 0.01 hPa

Density and/or relative density
> 1

Relative density
No information available.

Relative vapour density
No information available.

Particle characteristics
No data available

9.2. Other information
No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No hazardous reactions are to be expected if used as intended.

10.2. Chemical stability
Stable if recommended storage and handling instructions are followed (see section 7).

10.3. Possibility of hazardous reactions
No hazardous reactions are to be expected if used as intended. Vapors form an explosive mixture with air.

10.4. Conditions to avoid
Heat, naked flames and other sources of ignition. Protect from sunlight.

10.5. Incompatible materials
Oxidizing agent

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

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

Acute toxicity

Product / Substance name CAS / EC no.	Value / Dose	Exposure route	Test animals	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	2000 mg/kg	Dermal	Rat	OECD 402

Skin corrosion/irritation

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Not Irritating.	Rabbit	OECD 406

Serious eye damage/irritation

Product / Substance name CAS / EC no.	Result	Species	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Not Irritating.	Rabbit	ECHA

Respiratory or skin sensitisation

Product / Substance name CAS / EC no.	Result	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Not sensitising.	ECHA OECD 406

Germ cell mutagenicity

Product / Substance name CAS / EC no.	Result
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No data recorded.
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No data recorded.

Carcinogenicity

Product / Substance name CAS / EC no.	Other
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No information available.

Reproductive toxicity

Product / Substance name CAS / EC no.	Species	Result
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Rat	Based on available data, the classification criteria are met.

STOT-single exposure

Product / Substance name CAS / EC no.	Result
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No data recorded.

STOT-repeated exposure

Product / Substance name CAS / EC no.	Result
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No information available.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Acute Toxicity - Fish: Toxic conc. - LC 50	> 50 mg/l	96 hours	Brachydanio rerio (Zebra Fish)	OECD 210

Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline	Remark
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	EC50	> 16µg/l	72 hours	Skeletonema costatum	ISO 10253	The tested concentration is above the water solubility. Based on the available data, the classification criteria are not met.

Acute crustacean toxicity

Product / Substance name CAS / EC no.	Remark
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No information available.

Micro-/macro organism toxicity

Product / Substance name CAS / EC no.	Remark
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No information available.

Chronical toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Daphnia toxicity	0,0014 mg/l	21 days	Daphnia magna	OECD 211
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Algal toxicity	NOEC >16 µg/l	72 days	skeletonema costatum	Not available.
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Fish toxicity	NOEC > 0,0055 mg/l	32 days	Pimephales promelas (Fat-head Minnow)	OECD 210

12.2. Persistence and degradability

Persistence and degradability

Product / Substance name CAS / EC no.	Remark
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No information available.

12.3. Bioaccumulative potential

Bioaccumulative potential

Product / Substance name CAS / EC no.	LogKow / LogPow	Bioconcentration factor (BCF)	Type of test	Duration	Result	Duration of exposure	Species	Temperature	Method / Guideline
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	- / >6	No data available.	No data available.	No data available.	No data available.	No data available.	No data available.	22 °C	OECD 117

12.4. Mobility in soil

Mobility

Product / Substance name CAS / EC no.	Mobility
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	No data available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

Product / Substance name CAS / EC no.	PBT / vPvB
Dibenzylbenzene, Ar-methyl derivative 53585-53-8 / 258-649-2	Not Classified as PBT/vPvB by current EU criteria.

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal considerations

Disposal should be carried out in accordance with the regulations after consultation with the responsible local authority and the disposal company in a suitable and approved facility. The assignment of a waste code number in accordance with the European Waste Catalog (AVV) must be carried out in consultation with the regional disposal company.

Packaging

Packaging must be emptied of residues and disposed of properly in accordance with legal regulations. Packaging that cannot be emptied must be disposed of in consultation with the regional waste disposal company.

SECTION 14: Transport information

14.1. UN number

3082

14.2. UN proper shipping name

ADR / RID / ADN proper shipping name

There are no data available.

14.3. Transport hazard class(es)

Label

ADR/RID/ADN

9 *Environmental hazard*

IMDG

9

IATA

9 *Environmental hazard*

ADR / RID Class
9

ADR / RID hazard identification number
90

IMDG Class
9

IATA Class
9

ADN Class
9

ADN Class Code
M6

14.4. Packing group
III

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

IMDG EmS
F-A, S-F

14.6. Special precautions for user
No data available.

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

EU regulations

The product does not contain any substance(s) which are subject to authorization according to REACH Regulation (EC) 1907/2006 Annex XIV.
The substance is not considered as a candidate for inclusion in Annex XIV (list of substances subject to authorization) according to Article 57 in conjunction with Article 59 of REACH Regulation (EC) 1907/2006.
The product is subject to REACH Regulation (EC) 1907/2006 Annex XVII No. 3
The product is subject to Annex I, Part 1, hazard category: E1
Observe employment restrictions for expectant and nursing mothers, women of childbearing age and adolescents.

National regulations

D15.261203910

D15.261183970

LGK according to TRGS 510: 6:1c

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Changes to previous revision

Revision of all sections and change of layout

Abbreviations

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
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSR - Chemical Safety Report
DMEL - Derived Minimum Effect Level
DNEL - Derived No Effect Level
EC50 - Half Maximal Effective Concentration
ECHA - European Chemicals Agency
GHS - Globally Harmonized System
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LoW - List of Wastes
OEL - Occupational Exposure Limit
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Environmental Concentration
PNEC - Predicted No Effect Concentration(s)
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
SCBA - Self-Contained Breathing Apparatus
STOT - Specific Target Organ Toxicity
SVHC - Substances of Very High Concern
UFI - Unique Formula Identifier
vPvB - Very Persistent and Very Bioaccumulative

References to key literature and data sources

ECHA

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

Transport regulations according to ADR, RID, IMDG, IATA in the respective valid version.

Phrase meaning

Repr. 1B - Reproductive toxicity, hazard category 1B

Asp. Tox. 1 - Aspiration hazard, hazard category 1

Aquatic Chronic 1 - Hazardous to the aquatic environment — Chronic hazard category 1

H304 May be fatal if swallowed and enters airways.

H360FD May damage fertility. May damage the unborn child

H410 Very toxic to aquatic life with long lasting effects.