

EEC-Safety data sheet
PHASE CHANGE MATERIAL

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1. Chemical product and company identification

RUBITHERM® RT 58

Manufacturer/supplier:

Rubitherm Technologies GmbH
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Emergency telephone:

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2. Potential hazards

EEC-labelling: -

Potential dangers to health and environment:

Contact with liquid product skin burns can be caused.

Danger of fire and explosion:

Low risk. Product creates only ignitable mixtures or burns, if temperature exceeds flash point.

3. Composition/information of ingredients

Chemical characterisation:

Solid saturated hydrocarbons, molecular formula C_nH_{2n+2}

CAS-No: 8002-74-2

EINECS-No: 232-315-6

4. First-aid measures

Inhalation:

Take concerned person to fresh air. In case of lasting aches and pains take medical advices.

Eye contact:

In case of eyes contact rinse out eyes burns can be caused. In case of lasting aches and pains take medical advices.

Skin contact:

In case of skin contact wash concerned area with water and soap. In case of irritation take medical advice. Contact with liquid product skin burns can be caused. Cooling burned skin and take medical advices.

In case of swallowing:

Drink water and rinse out mouth. Don't induce vomiting, risk of aspiration. Take medical advices immediately.

5. Fire-fighting measures

Suitable means for extinguishing:

Carbon dioxide, foam, sand, water mist

Unsuitable means for extinguishing:

Water jet

Special hazards caused by the substance, its combustion products or arising gases:

Product fumes and air can cause explosive conglomerates heavier than air. Inflammation by hot surfaces, unshielded flames and sparks.

Don't inhale combustion gases and suspended matter which formed at combustion. Carbon monoxide, carbon dioxide and soot can also develop.

Special protective equipment in closed rooms:

Use breathing apparatus independent from ambient air.

Additional information:

Cool endangered containers externally with water
Fire class according to DIN-EN 2: B

6. Measures in case of unintended release

Personal precautions:

Caution of wet floor by leaking product. Slip hazard.
Avoid inhalation of product fumes. Keep product away from ignition sources, don't smoke.

Environmental precautions:

It's not allowed to drain into environment, into bodies of water or sewage water system.

Avoid soil contamination.

Methods for cleaning up:

Solid: remove product mechanically

Liquid: let product cold out and than remove it mechanically.

7. Handling and storage

Handling

Advices for safe handling:

No special measures necessary while using correctly.

Avoid skin- and eyes contact.

Avoid dust building.

Advices for protection against fire and explosion:

Product mist and air can cause explosive conglomerate.

Storage

Requirements for storerooms and containers:

Store the product dry, cool and in closed barrels devoid of light. Avoid storage in near from ignition or heat sources.

Take measure against electrostatic charging. Earth appliances.

Store liquid product in heatable tanks. Avoid the formation of aerosols and product mist at the decant.

Storage class: 11

Information for storage together with other products:

Avoid storage together with strong oxidising agents.

8. Exposure controls / personal protection

Ingredients with occupational exposure limits which should be monitored:

1. **Germany/Switzerland/Austria**

There is no AGW-value for paraffin wax.

2. **Germany:**

For aerosols and fine dust AGW-value of 3 mg/m³ has to be kept to.

3. **USA**

TLV-value for paraffin vapour: 2 mg/m³

Technical measures of control and air ventilation

Ensure good ventilation at workplace in case of handling the product in closed rooms with higher temperature. Product concentration is to be kept under exposition threshold values.

Personal protective equipment:

Hand protection: protective gloves made of NBR (nitril), neoprene, vitone (permeation level: 5 - 6) kat: II gem. EN 388

Eye protection: safety goggles

Body protection: protective clothes

Breathing protection: In case of arising gases and inadequately ventilation at workplace use breathe apparatus.

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9. Physical and chemical properties

Physical state:	at room temperature solid
Colour:	clear (liquid), whitish (Solid)
Odour:	odourless
Melting point (OECD 103):	55 - 59 °C
Typical:	58 °C
Boiling range (OECD 103):	> 300 °C
Flash point:	approx. 225 °C
Auto flammability:	> 270 °C
Explosive limit in air:	0.35 – 3.5 Vol.-%
Vapour pressure at 20 °C (OECD104):	< 0.1 hPa
Density at 90 °C (DIN 51 757):	0.77 Kg/l
Solubility at 20 °C - in water:	insolubly
Viscosity at 90 °C (Brookfield):	32.49 mm ² /s

n.a. = not applicable; n.e. = not established

10. Stability / reactivity

Conditions to avoid:
 No hazard reactions under normal conditions.
 Avoid high thermal load.
Material to avoid:
 Avoid strong oxidising agents.
Decomposition products:
 None.

11. Toxicological information

Acute toxicity:
 Orale LD50: > 5000 mg/kg (Rat)
 Dermale LD50: > 3000 mg/kg (Rabbit)

Skin irritation: slightly irritant
 Eye irritation: slightly irritant
 Sensitisation: not sensibility

12. Environmental details

Avoid drain into environment.
 Product is insoluble in water, remove it mechanically.
Elimination/persistence and degradability:
 Non easy degradable.

13. Disposal considerations

Reclaiming and recycling, otherwise can be disposed off after consultation with the responsible authorities according to the following waste disposal codes (European Waste Catalogue):

<u>EWC-Code</u>	<u>Description</u>
12 01 12*	used waxes and oils

Packaging:

If package optimal cleaned remove it again or recycle.

14. Transport information

Product is not a hazardous good according to ADR/RID; GGVs/GGVE, ADN/ADN; IMDG/GGVSee; ICAO-TI and IATA-DGR).
 No dangerous goods.

15. Statutory provisions

Technical Instructions on Air Quality:

Threshold value TAL: 150 mg/m³
 Mass flow: 3 kg/h or higher
 Substance class: III
 Appendix: E

Labelling in accordance with the EEC directives:

Risk-phrase, R-phrase: -

Safety advice, S-phrase:

S 2 avoid contact between children and product
 S 23 Do not inhale gas/smoke/fumes/aerosol
 S 24 Avoid contact with skin
 S 62 In case of swallowing do not induce vomiting!
 Take medical advice and show packaging and label.

16. Other information

Literature:

Ullmanns Encyclopädie der technischen Chemie
 4. Auflage, Band 24, Kapitel "Wachse aus Erdöl",
 Verlag Chemie GmbH, 1983.

This safety data sheet contains only safety related information.
 For specific data see product data sheet.

The information in this data sheet is gathered to the best of RUBITHERM's knowledge and belief and fits as the experiences stand at the moment. RUBITHERM doesn't guarantee the adherence of certain features in sense of legally binding.

In case of questions please call number given in point 1.

Rubitherm-Technologies GmbH