

## Preliminary

### EEC-Safety data sheet

# PHASE CHANGE MATERIAL

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Version: 1 Date: 15.01.2007 Revision: 19/07/2011

#### 1. Chemical product and company identification

### **RUBITHERM® RT 28 HC**

#### **Manufacturer/supplier:**

Rubitherm Technologies GmbH  
Sperenberger Str. 5a, 12277 Berlin  
Tel.: +49 30/720004-62, Fax: +49 30/720004-99

#### **Emergency telephone:**

Tel.: +49 30/720004-62

#### 2. Potential hazards

**EEC-labelling:** Xn, harmful

**Potential dangers to health and environment:**

In case of swallowing product lung damage 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

**CAS-No:** 593-45-3

**EG-No:** 209-790-3; R65

#### 4. First-aid measures

**Inhalation:**

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

**Eye contact:**

In case of eyes contact rinse out eyes. In case of irritation take medical advices.

**Skin contact:**

In case of skin contact wash concerned area with water and soap. In case of irritation take medical advices. 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, powder, 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.

Do not inhale combustion gases and suspended matter which forms 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 savage system.

Avoid soil contamination.

**Methods for cleaning:**

**Solid:** remove product mechanically

**Liquid:** use binder to bind liquid product, than remove it mechanically.

#### 7. Handling and storage

**Handling**

**Advices for safe handling:**

No special measures necessary while using correctly.

Avoid skin- and eyescontact.

**Advices for protection against fire and explosion:**

Product mist and air can cause explosive conglomerate.

**Storage**

**Requirements for storerooms and containers:**

Storage category (VCI): 11; flammable agent

Store the product cool, dry and in closed barrels devoid of light. Avoid storage nearby 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.

**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/m<sup>3</sup> has to be kept to.

##### 3. **USA**

TLV-value for paraffin vapour: 2 mg/m<sup>3</sup>

**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 FKM or NBR, 0,4 mm thickness

**Eye protection:** tight fit safety goggles

**Body protection:** protective clothes

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

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#### 9. Physical and chemical properties

<b>Physical state:</b>	at room temperature solid
<b>Colour:</b>	clear (liquid), whitish (solid)
<b>Odour:</b>	odourless
<b>pH-value at 20°C:</b>	n.e.
<b>Melting point (OECD 103):</b>	25 - 28°C
<b>Typical:</b>	27°C
<b>Boiling range (OECD 103):</b>	300 - 330°C
<b>Flash point:</b>	approx. 164°C
<b>Auto flammability:</b>	> 220°C
<b>Explosive limit in air:</b>	0.3 - 5Vol.-%
<b>Vapour pressure at 50°C (OECD104):</b>	n. e.
<b>Vapour density:</b>	n. e.
<b>Density at 40°C (DIN 51 757):</b>	0.756 g/ml
<b>Solubility at 20°C - in water:</b>	< 0.0022 mg/l
<b>Viscosity at 40°C (600-25):</b>	3,1 mPas
	n.a. = not applicable; n.e. = not established

#### 10. Stability / reactivity

<b>Conditions to avoid:</b>	No hazard reactions under normal conditions. Avoid high thermal load.
<b>Material to avoid:</b>	Strong oxidising agents.
<b>Decomposition products:</b>	None.

#### 11. Toxicological information

<b>Acute toxicity :</b>	
Orale LD50:	>2000 mg/kg (Rat) OECD-directive 401; (literature)
Dermale LD50:	>2000 mg/kg (Rat) OECD-directive 402; (literature)
Skin irritation:	slightly irritant OECD-directive 404; (literature)
Eye irritation:	slightly irritant OECD-directive 405; (literature)

#### 12. Environmental details

	Avoid drain into environment.
<b>Elimination/persistence and degradability:</b>	Easy biological degradable (OECD 301 F).
<b>Aquatic toxicity:</b>	
EC50 / daphnia (2 days):	no reaction
EC50 / algae (3 days):	no reaction

#### 13. Disposal considerations

After reprocessing, the product can get used again or utilised thermally, otherwise it can be disposed off after consulting with authorities according to the waste disposal codes (European Waste Catalogue). It is not possible to define a disposal code because only the application determines the classification. The disposal code is to be agreed in consultation with the local waste management.

#### Packaging:

**Drums:** can be returned to supplier or producer

#### 14. Transport information

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

#### 15. Statutory provisions

Legal base: 67/548/EWG

#### Labelling in accordance with the EEC directives:

Xn	harmful
<b>Risk-phrase, R-phrase:</b>	
R 65	Harmful. In case of swallowing product lung damage can be caused.

#### Safety advice, S-phrase:

S 2	keep away from children
S 23	Do not inhale gas/smoke/fumes/aerosol
S 24	Avoid contact with skin
S 62	In case of swallowed, do not induce vomiting! Take medical advice and show packaging and label.

**Classification according to VbF:** Not applicable

<b>TA-Luft:</b>	Substance class 3.1.7.III
<b>Waterhazard class (WGK):</b>	1
<b>StörfallVo:</b>	Not applicable
<b>Swiss:</b>	BAG-T-Nr.610200; Poison class: 0

#### 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 on this data sheet is gathered to the best of RUBITHERMS knowledge and belief and fits as the experience 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**