

Card No.: KCh/LP/65	Trade name: <b><u>FORMOWAX, FORMOWAX S,</u></b> <b><u>FORMOWAX HARD WAX</u></b>
Date of edition: 15.06.2011 Date of update: 29.04.2020	Edition 7.0

## **SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

### 1.1. Product identifier

Trade name: **FORMOWAX,  
FORMOWAX S,  
FORMOWAX HARD WAX**

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

Formowax, Formowax S and Formowax hard wax are used to perform in precision casting industry to produce sprue systems and wax patterns.

### 1.3. Details of the supplier of the safety data sheet

Producer: Polwax S.A.  
Address: ul.3 Maja 101, 38-200 Jasło, Poland  
Phone number: +48 (13) 44 66 242 / +48 (32)32 37 558  
E-mail: [kch@polwax.pl](mailto:kch@polwax.pl)

### 1.4. Emergency telephone number

European emergency phone number: 112

## **SECTION 2: HAZARDS IDENTIFICATION**

### 2.1. Classification of the substance or mixture

On the basis of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 *on classification, labelling and packaging of substances and mixtures*, **mixture is not classified as hazardous.**

### 2.2. Label elements

Pictograms: None  
Signal word: None  
Hazard statements: None  
Precautionary statements: None

### 2.3. Other hazards

The mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### 3.2 Mixtures

Mixture does not contain:

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- Substances hazardous to health and the environment within the meaning of Regulation (EC) No 1272/2008,
- Substances which are assigned Community exposure limits in the workplace,
- Substances meeting the criteria for PBT or vPvB in accordance with Annex XIII of REACH.

#### **SECTION 4: FIRST AID MEASURES**

##### 4.1. Description of first aid measures

###### Inhalation

Due to the low volatility the risk of inhalation is virtually impossible, although possible in case of overheating of the product. In case of discomfort, remove to fresh air. If no improvement obtains seek medical attention.

###### Eye contact

In case of contact with eyes, wash it with clean water (with rolled eyelids) for 20 to 30 minutes. If eye pain persists seek medical attention.

###### Skin contact

Wash skin with soap and water. Do not use any organic solvents. In case of skin contact with hot product, in order to minimize the effects of burns a place of contact should be cooled rapidly with water. If irritation occurs, contact a doctor. Clothes should be washed before the next use.

###### Intake

Due to the solid form at ambient temperature, there is little probability of consumption of the product. If swallowed, rinse mouth with water. However, if discomfort occurs seek medical attention..

##### 4.2. The most important acute and delayed symptoms and effects of exposure

Inhalation of large quantities of vapors of overheated product may lead to irritation of the upper respiratory tract. The molten product may cause burns.

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

In each of the above mentioned cases if the problems persist, call a physician or take the victim to a hospital, show packaging or label.

#### **SECTION 5: FIREFIGHTING MEASURES**

##### 5.1. Extinguishing media

###### Suitable extinguishing media

Use dry chemicals, foam. Carbon dioxide, sand or soil can be used for putting out small fires only.

###### Inappropriate extinguishing media:

Water may be used only for cooling the containers exposed to flame or heat.

##### 5.2. Special hazards arising from the substance or mixture

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Fire extinguishing danger:

Under the influence of high temperature, the fumes heavier than the air can be emitted, and they can spread at the ground level, where upon contact with a source of fire they might cause further ignition. Burning product might float on the surface of water.

Dangerous substances of burning and thermal decomposition:

Carbon monoxide (CO)

Dangerous reactions:

Only in a contact with the strong oxidizing agents.

5.3. Advice for firefighters

Product vapors should be dispersed by sprayed stream of water. The heat may cause pressure increase and bursting of closed containers, which conduces to spreading of fire and risk of burning and injury. The containers exposed to the action of fire or high temperature should be cooled down with water from a safe distance, and – if possible – removed from the area of danger. Fires in closed or poorly ventilated areas can be extinguished only by trained firefighters equipped with protective clothing and approved breathing apparatus with independent air supply.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

General recommendation:

- Immediately report the situation to the services responsible for fire and environmental protection.
- All the people not taking part in the rescue operation should be evacuated from the area of danger, and the access of strangers should be minimised. The product quickly solidifies in room temperature.
- Surfaces covered with solidified product are slippery.

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Risk control measures and handling of the product described in paragraphs 7 and 8

For emergency responders: Wear antistatic protective clothing, gloves (nitrile rubber, NBR) and non-slip shoes.

6.2. Environmental precautions

Product must not be allowed to enter into drainage or sewers because its solidification may block the system.

6.3. Methods and material for containment and cleaning up

Due to the high pour point, product spills quickly solidify, which facilitates its disposal. Spilled (solidified) product should be collected with available equipment and placed in a labeled container for later recovery or disposal in accordance with applicable regulations.

6.4. Reference to other sections

Risk control measures and handling of the product described in paragraphs 7 and 8.  
Disposal - paragraph 13.

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## **SECTION 7: HANDLING AND STORAGE**

### 7.1. Precautions for safe handling

When working with the product should follow the general rules and regulations of fire safety.

During handling apply mechanical ventilation - exhaust. Use the tools not causing sparks.

Protect the product from contact with an open fire.

Avoid contact with skin and eyes and inhalation of vapors in case of overheating of product. Wear protective clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep the product I solid state in a cool, dry room equipped with a ventilation system. In the area of the magazine do not smoke, do not use open fire and sparking devices.

Packaging should be sealed and properly labelled, placed away from heat sources and strong oxidizing agents. Avoid exposure to direct sunlight. Packaging should protect the product against moisture, mechanical and air pollution. The product in liquid form should be stored in closed tanks, equipped with a heating system. It is recommended that the storage tanks are equipment with extinguishing system. It is recommended to place the tanks in sumps to protect against the ingress of leaking substances into soil and groundwater.

#### Storage Temperature

In the solid state at room temperature. In a liquid state at a temperature of 75-80°C.

#### Package

Hydrocarbons-resistant packaging should be applied.

### 7.3 Specific end uses

Formowax, Formowax S and Formowax hard wax are used to perform in precision casting industry to produce sprue systems and wax patterns.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1. Control parameters

Maximum allowable concentrations in the work environment has not been established for ingredients of the product.

### 8.2. Exposure controls

Follow the general provisions relating to health and safety. After washing the skin with warm soapy water preemptively smear with regenerative cream.

Respiratory protection - In case of concentration of vapors in air use a respirator with filter A, AX (brown) or another type suitable against vapors of organic substances.

Hand protection - Use oil-resistant gloves. Replace if you experience signs of wear or damage. Use of nitrile and neoprene gloves is recommended, the use of leather gloves is not recommended.

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Eye protection - Use safety glasses.  
Skin protection - Use oil-resistant protective clothing.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### 9.1. Information on basic physical and chemical properties

<b>Appearance:</b>	<b>solid in yellow light brown colour</b>
<b>Odour:</b>	<b>characteristic for paraffin</b>
<b>Odour threshold</b>	<b>not tested</b>
<b>pH</b>	<b>neutral (r-aq)</b>
<b>Melting point/freezing point</b>	<b>min. 60,0°C</b>
<b>Initial boiling point and boiling range</b>	<b>min. 300°C</b>
<b>Flash point:</b>	<b>min. 200°C (open crucible method)</b>
<b>Evaporation rate</b>	<b>not tested</b>
<b>Flammability (solid, gas)</b>	<b>Not classified as flammable</b>
<b>Upper/lower flammability or explosive limits</b>	<b>under normal conditions of use does not form explosive vapours</b>
<b>Vapour pressure</b>	<b>0-20 Pa at 80°C</b>
<b>Vapour density</b>	<b>not tested</b>
<b>Relative density</b>	<b>~ 0,850 g/cm<sup>3</sup> (at 15°C)</b>
<b>Solubility(ies)</b>	<b>Insoluble in water, soluble in hydrocarbon based solvents</b>
<b>Partition coefficient: n-octanol/water</b>	<b>not tested</b>
<b>Auto-ignition temperature</b>	<b>min. 300°C</b>
<b>Decomposition temperature</b>	<b>min. 350°C</b>
<b>Viscosity</b>	<b>6 – 8,5 mm<sup>2</sup>/s at 100°C</b>
<b>Explosive properties</b>	<b>not applicable - not classified as explosive</b>
<b>Oxidising properties</b>	<b>not applicable - not classified as oxidizing</b>

### 9.2. Other information

Not applicable

## **SECTION 10: STABILITY AND REACTIVITY**

### 10.1. Reactivity

Under normal storage conditions does not manifest the tendency to dangerous reactions

### 10.2. Chemical stability

Stable under recommended storage conditions.

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10.3. Possibility of hazardous reactions

No information about the possibility of hazardous reactions.

10.4. Conditions to avoid

Avoid exposure to high temperature. Do not use in the vicinity of open flames and other sources of ignition

10.5. Incompatible materials

Shows no tendency to dangerous reactions. Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

Under conditions of incomplete combustion may produce carbon monoxide (CO).

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1. Information on toxicological effects

<b>Acute toxicity:</b>	- does not apply
<b>Skin corrosion/irritation</b>	- may cause irritation in case of prolonged exposure
<b>Serious eye damage/irritation</b>	- may cause irritation in case of prolonged exposure
<b>Respiratory or skin sensation</b>	- does not apply
<b>Germ cell mutagenicity</b>	- does not apply
<b>Carcinogenicity</b>	- does not apply
<b>Reproductive toxicity</b>	- does not apply
<b>STOT-single exposure</b>	- does not apply
<b>STOT-repeated exposure</b>	- does not apply
<b>Aspiration hazard</b>	- does not apply

**SECTION 12: ECOLOGICAL INFORMATION**

12.1. Toxicity

Under normal conditions of use does not cause hazard to soil and water environment.

12.2. Persistence and degradability

No data

12.3. Bioaccumulative potential

It does not contain substances classified as PBT or vPvB

12.4. Mobility in soil

Solidifies at ambient temperature. Lack of ability to migrate in the soil.

12.5. Results of PBT and vPvB assessment

Not applicable

12.6. Other adverse effects

In the case of spillage into the water freezes and can move on its surface.

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### **SECTION 13: DISPOSAL CONSIDERATIONS**

Classification of waste material:

Identification code: **05 01 99 - other waste material, not classified**

Waste material is not classified as dangerous.

13.1. Waste treatment methods

The product which lost its properties (as a result of e.g. contamination) should be recovered to the best of abilities by means of filtration and refining. Product not suitable for utilisation as well as contaminated waste material (e.g. as a result of spillage) should be stored only in marked places.

Dispose of in accordance with local and national regulations.

Single-use packages should be disposed of in accordance with binding disposal regulations. Multiple-use packages can be used again after purification.

### **SECTION 14: TRANSPORT INFORMATION**

- |  |   |
|--|---|
| 14.1. <u>UN number</u>   | -not applicable   |
| 14.2. <u>UN proper shipping name</u>   | -not applicable   |
| 14.3. <u>Transport hazard class(es)</u>  | -not applicable   |
| 14.4. <u>Packing group</u>   | -not applicable   |
| 14.5. <u>Environmental hazards</u>   | -not applicable   |
| 14.6. <u>Special precautions for user</u>  | -During loading, transportation and unloading of product in liquid form (approx. 100°C) there is a possibility of burns from hot product. Use heat-resistant gloves, goggles and protective clothing. |
| 14.7. <u>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</u> | -not applicable   |

### **SECTION 15: REGULATORY INFORMATION**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

1. Regulation (EC) No 1907/2006 of the European Parliament and the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC with later amendments.
2. Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and amending and repealing Directive 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with later amendments.

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3. European Agreement concerning the international carriage of dangerous goods by road (ADR) (Dz.U.05.178.1481 with later amendments).
4. Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
5. Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.
6. Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
7. Council Directive 94/55/EC of 21 July 1994 the laws of the Member States relating to road transport of dangerous goods with later amendments.
8. Regulations concerning the international carriage of dangerous goods (RID), issued pursuant to the Convention concerning International Carriage by Rail (COTIF) concluded at Berne on 9 May 1980 (Dz.U.85.34.158 with later amendments).

15.2. Chemical safety assessment

Chemical safety assessment has not been carried out.

**SECTION 16: OTHER INFORMATION**

This safety data is made in accordance with the principles set out in the REACH Regulation, the available literature described including messages by specially established international organizations and to the best of our knowledge. Analysis of physicochemical properties is regularly carried out in the POLWAX S.A. laboratory.

STATEMENT

The information provided in this SDS contains the state of our knowledge at the date of issue. We draw attention to downstream users and distributors that we are not responsible for improper use of our product in a manner other than recommended by us.

Precautions regarding health and safety and advice on matters of environmental protection enshrined in the Charter are not necessarily appropriate for all individuals or institutions. Applying the duty to assess and use the product specified in a safe manner and in accordance with all applicable laws and regulations. The provisions set out in the Charter in no way relieve the User of the provisions relating to its business.

The above document was developed in Polwax S.A.

**MATERIAL SAFETY DATA SHEETS SHOULD BE IMMEDIATELY TRANSFERED DOWN TO  
SUPPLY CHAIN**