

Rudolf Hensel GmbH  
21039 Börnsen

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## SECTION 1: Identification of the substance / preparation and of the company

### 1.1 Product identifier

**HENSOTHERM 2 KS OUTDOOR**

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

#### 1.2.1 Relevant uses

Intumescent fire retardant coatings

#### 1.2.2 Uses advised against

None known.

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

#### Company

Rudolf Hensel GmbH

Lauenburger Landstr. 11  
21039 Börnsen / GERMANY  
Phone +49 (0)40-72 10 62 10  
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Homepage [www.rudolf-hensel.de](http://www.rudolf-hensel.de)  
E-mail [info@rudolf-hensel.de](mailto:info@rudolf-hensel.de)

#### Address enquiries to

#### Technical information

[info@rudolf-hensel.de](mailto:info@rudolf-hensel.de)

#### Safety Data Sheet

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

### 1.4 Emergency phone

#### Company

+49 (0)40-72 10 62 10 (7:00 - 17:00) 0172 4115390 (17:00 - 07:00)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

##### Hazard pictograms

not applicable

#### 2.1.2 Classification according to Regulation 67/548/EEC or 1999/45/EC

##### Hazard symbols

none

##### R-phrases

none

The product does not require a hazard warning label in accordance with EC-directives.

### 2.2 Label elements

#### Labelling according to Regulation 67/548/EEC or 1999/45/EC

##### Hazard symbols

none

##### R-phrases

none

##### Special labelling

Safety data sheet available for professional user on request.

##### 2004/42/CE

0 g/l II A i WB One-pack performance coatings (max. 140 g/l)

### 2.3 Other hazards

#### Environmental hazards

Does not contain any PBT or vPvB substances.

#### Other hazards

none

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### SECTION 3: Composition / Information on ingredients

#### 3.1 Product-type:

The product is a mixture.

Range [%]	Substance
1 - <5	Red Phosphorus
	CAS: 7723-14-0, EINECS/ELINCS: 231-768-7, EU-INDEX: 015-002-00-7
	GHS/CLP: Flam. Sol. 1 - H228 - Aquatic Chronic 3 - H412
	EEC: F-N, R 11-16-52/53

#### Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For full text of H-statements and R-phrases: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information

Change soaked clothing.

##### Inhalation

Ensure supply of fresh air.  
In the event of symptoms seek for medical treatment.

##### Skin contact

When in contact with the skin, clean with soap and water.  
Consult a doctor if skin irritation persists.

##### Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

##### Ingestion

Supply with medical care.  
Do not induce vomiting.  
Rinse out mouth and give plenty of water to drink.

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

None known.

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

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

##### Extinguishing media that must not be used

Full water jet.

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

Unknown risk of formation of toxic pyrolysis products.  
Carbon monoxide (CO)  
Phosphorus oxides (POx).

#### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
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

High risk of slipping due to leakage/spillage of product.

#### 6.2 Environmental precautions

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

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### 6.3 Methods and material for containment and cleaning up

Take up mechanically.  
Take up residues with absorbent material (e.g. sand).  
Dispose of absorbed material in accordance with the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

No special measures necessary if used correctly.  
Use only in well-ventilated areas.  
No special measures necessary.  
Wash hands before breaks and after work.  
Use barrier skin cream.

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

Keep only in original container.  
not applicable  
Keep container tightly closed.

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored (GB)

Range [%]	Substance
1 - <5	Red Phosphorus
	CAS: 7723-14-0, EINECS/ELINCS: 231-768-7, EU-INDEX: 015-002-00-7
	Long-term exposure: 0,1 mg/m <sup>3</sup>
	Short-term exposure (15-minute): 0,3 mg/m <sup>3</sup>
1 - <20	Titanium dioxide
	CAS: 13463-67-7, EINECS/ELINCS: 236-675-5
	Long-term exposure: 4 mg/m <sup>3</sup> , respirable; total inhalable: TWA=10 mg/m <sup>3</sup>

### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses.
<b>Hand protection</b>	Butyl rubber, >480 min (EN 374). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Not required under normal conditions.
<b>Other</b>	Avoid contact with eyes and skin. Do not inhale aerosols.
<b>Respiratory protection</b>	Not required under normal conditions.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	See SECTION 6+7.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	pasty
Color	grey
Odor	characteristic
Odour threshold	not determined
pH-value	6,5 - 7,5
pH-value [1%]	not determined
Boiling point [°C]	not determined
Flash point [°C]	not applicable
Flammability [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,25 - 1,35
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	>60 s (ISO 2431 6 mm) (20 °C)
Relative vapour density determined in air	not applicable
Evaporation speed	not applicable
Melting point [°C]	not determined
Autoignition temperature [°C]	not applicable
Decomposition temperature	not determined

### 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

The product is stable under standard conditions.

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

### 10.4 Conditions to avoid

See SECTION 7

### 10.5 Incompatible materials

Strong oxidizing agent.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Range [%]	Substance
1 - <5	Red Phosphorus, CAS: 7723-14-0
	LD50, oral, Rat: > 15000 mg/kg (Lit.).

**Serious eye damage/irritation** not determined

**Skin corrosion/irritation** not determined

**Respiratory or skin sensitisation** not determined

**Specific target organ toxicity — single exposure** not determined

**Specific target organ toxicity — repeated exposure** not determined

**Mutagenicity** There is no evidence of any mutagenic effects.

**Reproduction toxicity** There is no evidence of any reproductive toxicity effects.

**Carcinogenicity** There is no evidence of any carcinogenic effects.

#### General remarks

Toxicological data of complete product are not available.  
No classification on the basis of the calculation procedure of the preparation directive.  
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

## SECTION 12: Ecological information

### 12.1 Toxicity

### 12.2 Persistence and degradability

**Behaviour in environment compartments** not determined

**Behaviour in sewage plant** not determined

**Biological degradability** not determined

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Other adverse effects

No classification on the basis of the calculation procedure of the preparation directive.  
Ecological data of complete product are not available.  
The product contains organically bound halogen in accordance with the formulation.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

##### Product

For recycling, consult manufacturer.

##### Waste no. (recommended)

080112

##### Contaminated packaging

Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of as for product.

##### Waste no. (recommended)

150102  
150104

### SECTION 14: Transport information

#### 14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

#### 14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

#### 14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

#### 14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

#### 14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

#### 14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

#### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

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### SECTION 15: Regulatory information

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

EEC-REGULATIONS	1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC
TRANSPORT-REGULATIONS	DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	no
- VOC (1999/13/CE)	0%

#### 15.2 Chemical safety assessment

not applicable

### SECTION 16: Other information

#### 16.1 R-phrases (SECTION 3)

R 11: Highly flammable.  
R 16: Explosive when mixed with oxidising substances.  
R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 16.2 Hazard statements (SECTION 3)

H228 Flammable solid.  
H412 Harmful to aquatic life with long lasting effects.

#### 16.3 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
TLV@TWA = Threshold limit value – time-weighted average  
TLV@STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

#### 16.4 Other information

Modified position none

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