

Rudolf Hensel GmbH
21039 Börnsen

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Version 05. Supersedes version: 04

Page 1 / 10

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

1.1 Product identifier

HENSOTHERM® 2 KS AUSSEN

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

1.2.1 Relevant uses

Fire retardant coating

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
Fax +49 (0)40-72 10 62 52
Homepage www.rudolf-hensel.de
E-mail info@rudolf-hensel.de

Address enquiries to

Technical information info@rudolf-hensel.de

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

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 [REGULATION (EC) No 1272/2008]

No classification.

2.2 Label elements

Hazard pictograms

Hazard statements none

Special labelling

EUH210 Safety data sheet available on request.
Product treated with preservatives
METHYLCHLOROISOTHIAZOLINONE/METHYLISOTHIAZOLINONE (3:1).
Contains: Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1). EUH208 May produce an allergic reaction.

2004/42/CE

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

2.3 Other hazards

Human health dangers

Frequent persistent contact with the skin can cause skin irritation.

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 2 / 10

SECTION 3: Composition / Information on ingredients

Product-type:

3.2 The product is a mixture.

Range [%]	Substance
1 - <5	Red Phosphorus CAS: 7723-14-0, EINECS/ELINCS: 918-594-3, Reg-No.: 01-2119489913-23-XXXX GHS/CLP: Flam. Sol. 1: H228 - Aquatic Chronic 3: H412
< 0,0015	Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1) CAS: 55965-84-9, EU-INDEX: 613-167-00-5 GHS/CLP: Acute Tox. 3: H301 - Acute Tox. 2: H310 H330 - Skin Corr. 1C: H314 - Eye Dam. 1: H318 - Skin Sens. 1A: H317 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M_acute = 100, M_chronic = 100

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: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek 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

Get medical advice.
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

Allergic reactions

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

In the event of fire the following can be released:
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.

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 3 / 10

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.

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 within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

The normal safety precautions for handling chemicals must be observed.

Use only in well-ventilated areas.

Provide suitable vacuuming at the processing area.

Use barrier skin cream.

Wash hands before breaks and after work.

Do not eat, drink, smoke or take drugs at work.

Clean skin thoroughly after work, apply skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Keep container tightly closed.

Protect from heat/overheating.

Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

Rudolf Hensel GmbH
 21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 4 / 10

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
Titanium dioxide
CAS: 13463-67-7, EINECS/ELINCS: 236-675-5, Reg-No.: 01-2119489379-17-XXXX
Long-term exposure: 4 mg/m ³ , respirable; total inhalable: TWA=10 mg/m ³

DNEL

Substance
Red Phosphorus, CAS: 7723-14-0
Industrial, dermal, Long-term - systemic effects: 30 mg/kg bw/day.
Industrial, inhalative, Long-term - systemic effects: 4 mg/m ³ .
general population, oral, Long-term - systemic effects: 30 mg/kg bw/day.
general population, inhalative, Long-term - systemic effects: 4 mg/m ³ .
general population, dermal, Long-term - systemic effects: 30 mg/kg bw/day.

PNEC

Substance
Red Phosphorus, CAS: 7723-14-0
soil, 12,5 mg/kg soil dw.
sediment (seawater), 10 mg/kg sediment dw.
sediment (freshwater), 100 mg/kg sediment dw.
sewage treatment plants (STP), 10 mg/L.
seawater, 1,05 µg/L.
freshwater, 10,5 µg/L.

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation.
Eye protection	Safety glasses. (EN 166:2001)
Hand protection	0,4mm Butyl rubber, >480 min (EN 374-1/-2/-3). The details concerned are recommendations. Please contact the glove supplier for further information.
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Do not inhale aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter P2. (DIN EN 143)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 5 / 10

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	pasty
Color	grey
Odor	characteristic
Odour threshold	not required
pH-value	6,5 - 7,5
pH-value [1%]	not determined
Boiling point [°C]	not determined
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/ml]	1,25 - 1,35 (20 °C / 68,0 °F)
Bulk density [kg/m ³]	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 [°C]	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.

Rudolf Hensel GmbH
 21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 6 / 10

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, inhalativ (mist), > 5 mg/l 4h.
ATE-mix, dermal, > 2000 mg/kg.
ATE-mix, oral, > 2000 mg/kg.
Substance
Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1), CAS: 55965-84-9
LD50, dermal, Rabbit: 87,12 mg/kg (ECHA, CLH Report).
LD50, oral, 64 mg/kg (ECHA, CLH Report).
LD50, oral, Rat: 53 mg/kg.
LC50, inhalative, Rat: 0,171 mg/l/4h (ECHA, CLH Report).

Serious eye damage/irritation	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Skin corrosion/irritation	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Specific target organ toxicity — single exposure	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Specific target organ toxicity — repeated exposure	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Mutagenicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Reproduction toxicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Carcinogenicity	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.
Aspiration hazard	Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled.
General remarks	none

SECTION 12: Ecological information

12.1 Toxicity

Substance
Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1), CAS: 55965-84-9
LC50, (96h), Oncorhynchus mykiss: 0,19 mg/l.
EC50, (48h), Daphnia magna: 0,18 mg/l.
ErC50, Skeletonema costatum: 0,003 mg/l.

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 7 / 10

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

Accumulation in organisms is not expected.

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

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

None known.

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

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 8 / 10

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)

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.4 Packing group

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID	no
Inland navigation (ADN)	no
Marine transport in accordance with IMDG	no
Air transport in accordance with IATA	no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 9 / 10

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
TRANSPORT-REGULATIONS	ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)
NATIONAL REGULATIONS (GB):	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	no
- VOC (2010/75/CE)	0%

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 03)

H412 Harmful to aquatic life with long lasting effects.
H228 Flammable solid.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
H310+H330 Fatal in contact with skin or if inhaled.
H301 Toxic if swallowed.

Rudolf Hensel GmbH
21039 Börnsen

Date printed 13.05.2020, Revision 13.05.2020

Version 05. Supersedes version: 04

Page 10 / 10

16.2 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
 ATE = acute toxicity estimate
 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
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 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
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 LL50 = Median lethal loading
 LQ = Limited Quantities
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 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

16.3 Other information

Classification procedure

Modified position

SECTION 3 been added: Mixture: 5-Chloro-2-methyl-2H-isothiazolin-3-one/2-Methyl-4-isothiazolin-3-one (3:1)

SECTION 3 deleted: 1,2-benzisothiazol-3(2H)-one

SECTION 2 been added: Further hazards were not determined with the current level of knowledge.

SECTION 2 been added: Frequent persistent contact with the skin can cause skin irritation.

SECTION 2 been added: Product treated with preservatives [x].

SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.

SECTION 8 deleted: Breathing apparatus in the event of aerosol or mist formation.



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