Rudolf Hensel GmbH
21039 Börnsen

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

1.1 Product identifier

HENSOTHERM® 1 KS INNEN

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 (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

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]

Skin Irrit. 2: H315 Causes skin irritation.
Skin Sens. 1: H317 May cause an allergic skin reaction.
Eye Irrit. 2: H319 Causes serious eye irritation.

2.2 Label elements

The product is required to be labelled in accordance with regulation CLP.

Hazard pictograms

Signal word WARNING

Hazard statements

none
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements

P261 Avoid breathing vapours / spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
P302+P352 IF ON SKIN: Wash with plenty of water / soap.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

2004/42/CE < 40 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.
Contains no ingredients with endocrine-disrupting properties.

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

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
<5	Ethanol
	CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5
	GHS/CLP: Flam. Liq. 2: H225 - Eye Irrit. 2: H319
	SCL [%]: >= 50: Eye Irrit. 2: H319
0,5 - <2	Sodium hydroxide
	CAS: 1310-73-2, EINECS/ELINCS: 215-185-5, EU-INDEX: 011-002-00-6, Reg-No.: 01-2119457892-27-XXXX
	GHS/CLP: Met. Corr. 1: H290 - Skin Corr. 1A: H314 - Eye Dam. 1: H318
	SCL [%]: >= 5: Skin Corr. 1A: H314, 2 - <5: Skin Corr. 1B: H314, 0,5 - <2: Skin Irrit. 2: H315, 0,5 - <2: Eye Irrit. 2: H319
<0,01	2-Methyl-2H-isothiazolin-3-one
	CAS: 2682-20-4, EINECS/ELINCS: 220-239-6, EU-INDEX: 613-326-00-9
	GHS/CLP: Acute Tox. 3: H301 H311 - Acute Tox. 2: H330 - Skin Corr. 1B: H314 - Skin Sens. 1A: H317 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410 - Eye Dam. 1: H318 - EUH071, M-Factor (acute): 10, M-Factor (chronic): 1
	SCL [%]: >= 0,0015 : Skin Sens. 1A: H317

Comment on component parts 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 In case of contact with skin wash off immediately with soap and water.
If skin irritation or rash occurs: Get medical advice/attention.

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
Irritant effects

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 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

Risk of formation of toxic pyrolysis products.

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance within 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.
Use personal protective equipment.

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.

Wash hands before breaks and after work.
Use barrier skin cream.
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.

torage class (TRGS 510) Storage class 10 (VCI)

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored DE (TRGS 900)

Substance
Ethanol
CAS: 64-17-5, EINECS/ELINCS: 200-578-6, EU-INDEX: 603-002-00-5
Exposure limit: 200 ppm, 380 mg/m³, DFG, Y
Factor: 4 (II)

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

DNEL

Substance
Sodium hydroxide, CAS: 1310-73-2
Industrial, inhalative, Long-term - local effects, 1 mg/m³
general population, inhalative, Long-term - local effects, 1 mg/m³

PNEC

Substance
Sodium hydroxide, CAS: 1310-73-2
There are no PNEC values established for the substance.

8.2 Exposure controls

Additional advice on system design
Ensure adequate ventilation on workstation.
Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

Eye protection
Safety glasses. (EN 166:2001)

Hand protection
0,7 mm 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 breathe vapour/spray.
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, combination filter A-P2. (DIN EN 14387)

Thermal hazards
not applicable

Delimitation and monitoring of the environmental exposition
Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Form	pasty
Color	colourless
Odor	characteristic
Odour threshold	not required
pH-value	not determined
pH-value [1%]	not determined
Boiling point or initial boiling point and boiling range [°C]	not determined
Flash point [°C]	not applicable
Flammability	not determined
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	ca. 2,3
Density [g/cm³]	ca. 1,3 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m³]	not applicable
Solubility in water	miscible
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	not determined
Kinematic viscosity	not determined
Relative vapour density	not relevant
Melting point [°C]	not determined
Auto-ignition temperature [°C]	not self-igniting
Decomposition temperature [°C]	not determined
Particle characteristics	not applicable

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

No hazardous reactions known.

10.4 Conditions to avoid

See SECTION 7

10.5 Incompatible materials

not relevant

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity

Product
ATE-mix, oral, > 2000 mg/kg

Substance
Ethanol, CAS: 64-17-5
LD50, oral, Rat, 10470 mg/kg
NOAEL, oral, Rat, 1730 mg/kg/90d
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
LD50, oral, Rat, 120 mg/kg

Acute dermal toxicity

Product
ATE-mix, dermal, > 2000 mg/kg

Substance
Ethanol, CAS: 64-17-5
LD50, dermal, Rabbit, > 15800 mg/kg
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
LC50, dermal, Rabbit, 242 mg/kg

Acute inhalational toxicity

Product
ATE-mix, inhalativ (mist), > 20 mg/l 4h

Substance
Ethanol, CAS: 64-17-5
LC50, inhalative, Rat, 51 mg/l/4h
NOAEL, inhalative, Rat, > 20 mg/l/20d
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
LC50, inhalative, Rat, 340 µg/m³ (4h)

Serious eye damage/irritation

Based on the available information, the classification criteria are fulfilled.
Irritant
Calculation method
Classification was carried out based on substance-specific concentration limits.

Substance
Sodium hydroxide, CAS: 1310-73-2
Eye, corrosive
Ethanol, CAS: 64-17-5
irritant

Skin corrosion/irritation

Based on the available information, the classification criteria are fulfilled.
Irritant
Calculation method
Classification was carried out based on substance-specific concentration limits.

Substance

Sodium hydroxide, CAS: 1310-73-2
dermal, corrosive
Ethanol, CAS: 64-17-5
no adverse effect observed
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
dermal, Rabbit, OECD 404, corrosive

Respiratory or skin sensitisation

Based on the available information, the classification criteria are fulfilled.
May cause an allergic skin reaction.
Calculation method
Toxicological data of complete product are not available.

Substance
Sodium hydroxide, CAS: 1310-73-2
dermal, non-sensitizing
Ethanol, CAS: 64-17-5
dermal, no adverse effect observed
inhalative, no adverse effect observed
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
dermal, Guinea pig, OECD 406, sensitising

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.

Substance
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
NOAEL, oral, Rat, 24,6 mg/kg bw/day, OECD 408, negativ

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.

Substance
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
Cell culture, in vitro, OECD 471, negativ

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.

- Fertility

Substance
Ethanol, CAS: 64-17-5
NOAEL, oral, mouse, 20 700 mg/kg bw/d (Effect on fertility), no adverse effect observed
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
NOAEL, oral, Rabbit, 30 mg/kg bw/day, OECD 416, negativ

- Development

Substance
Ethanol, CAS: 64-17-5
NOAEC, inhalative, Rat, 30 400 mg/m³ (Effect on developmental toxicity), no adverse effect observed
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4

NOAEL, oral, Rabbit, 30 mg/kg bw/day, OECD 416, negativ

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.

Substance
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
NOAEL, oral, Rat, 3,1 mg/kg bw/day, OECD 453, negativ

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

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

11.2.2 Other information

SECTION 12: Ecological information

12.1 Toxicity

Product
Based on the available information, the classification criteria are not fulfilled.

Substance
Sodium hydroxide, CAS: 1310-73-2
EC50, (48h), Invertebrates, 40,4 mg/L
Ethanol, CAS: 64-17-5
LC50, (96h), fish, 11200 mg/l
EC50, (48h), Ceriodaphnia dubia, 5012 mg/l
IC50, (96h), Algae, 275 mg/l
2-Methyl-2H-isothiazolin-3-one, CAS: 2682-20-4
LC50, (96h), Oncorhynchus mykiss, 4,77 mg/l
LC50, (48h), Invertebrates, 0,93 - 2,98 mg/L
EC50, (96h), Algae, 72,5 - 103 µg/L

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 Endocrine disrupting properties

Does not contain a relevant substance that meets the classification criteria.

12.7 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.
Coordinate disposal with the disposal contractor/authorities if necessary.

Waste no. (recommended) 080111*

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

SECTION 14: Transport information

14.1 UN number or ID 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

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 Maritime transport in bulk according to IMO instruments

not applicable

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) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances ≥ 0.1% that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains ≥ 0.1% of substances with the following restrictions. 40, 75 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is subject to the following restrictions. 3
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024)
NATIONAL REGULATIONS (DE):	Hazardous Substances Ordinance - GefStoffV 21.07.2021; Detergent and Cleaning Agents Act - WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905.
- Water hazard class	1, conf. AwSV, 18.04.2017
- Decree for case of interference, observe limits	no
- Class. according to TA-Luft	5.2.5.
Storage class (TRGS 510)	Storage class 10 (VCI)
- Observe employment restrictions for people	none
- VOC (2010/75/CE)	< 3%
- Other regulations	TRGS 510: Storage of hazardous substances in non-stationary containers TRGS 400: Risk assessment TRGS 401: Gefährdung durch Hautkontakt. - Ermittlung, Beurteilung, Maßnahmen. TRGS 907: Verzeichnis sensiblisierender Stoffe.

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

EUH071 Corrosive to the respiratory tract.
H410 Very toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H301+H311 Toxic if swallowed or in contact with skin.
H318 Causes serious eye damage.
H314 Causes severe skin burns and eye damage.
H290 May be corrosive to metals.
H319 Causes serious eye irritation.
H225 Highly flammable liquid and vapour.

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
IVIS = In vitro irritation score
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

Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
Eye Irrit. 2: H319 Causes serious eye irritation. ()

Modified position

1.3, 2.1, 2.2, 2.3, 3.2, 4.1, 4.2, 5.1, 7.1, 7.2, 8.1, 9.1, 11.1, 11.2, 12.1, 12.4, 12.6, 12.7, 13.1, 15.1, 16.1, 16.2, 16.3