

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

### 1.1 Product identifier

#### Trade name/designation

421-337-004 HV 33 R (dif. colors)  
CHING-HYDROVERSAL-MICA  
INTERMEDIATE COATING 80 µm

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

#### Relevant identified uses

Corrosion Protection and Industrial Coatings.

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

#### Supplier

CHEMISCHE INDUSTRIE ERLANGEN GMBH  
Rathenastr. 18 Telephone: +49 9131 3006-0  
91052 Erlangen E-mail: info@ching-coatings.com  
Germany Website: <https://www.ching-coatings.com>

#### Department responsible for information

E-mail (competent person) msds@ching-coatings.com

### 1.4 Emergency telephone number

Emergency telephone number: +49 9131 3006 91  
Only available during office hours.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 2.2 Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

#### Hazard pictograms

not applicable

#### Signal word

not applicable

#### Hazard statements

not applicable

#### Precautionary statements

not applicable

#### Hazard components for labelling

not applicable

#### Supplemental hazard information

EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.  
EUH210 Safety data sheet available on request.

### 2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.  
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

## SECTION 3: Composition/information on ingredients.

### 3.2 Mixtures

#### Description

Coating based on waterborne synthetic resins

#### Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	% [mass]
* 111-76-2 203-905-0 603-014-00-0	<b>2-butoxyethanol</b> 01-2119475108-36 Acute Tox. 4 H302 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Acute Tox. 3 H331 ATE (oral): = 1,200 mg/kg ATE (inhalative): = 3 mg/L (4 h)	8,00 < 10,0
* 2634-33-5 220-120-9 613-088-00-6	<b>1,2-benzisothiazol-3(2H)-one</b> 01-2120761540-60 Acute Tox. 4 H302 / Skin Irrit. 2 H315 / Skin Sens. 1A H317 / Eye Dam. 1 H318 / Acute Tox. 2 H330 / Aquatic Acute 1 H400 (M = 1,00) / Aquatic Chronic 1 H410 (M = 1,00) Specific concentration limit (SCL) Skin Sens. 1A H317: >= 0,036 ATE (oral): = 450 mg/kg bw	< 0,025

**Remark**

Full text of H- and EUH-statements: see section 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. If unconscious but breathing normally, place in recovery position and seek medical advice.

**Following inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners. Wash contaminated clothing before reuse.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**Following ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

**Self-protection of the first aider**

First aider: Pay attention to self-protection!

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

**Symptoms**

In all cases of doubt, or when symptoms persist, seek medical advice.

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

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Powder, spray mist, (water)

**Unsuitable extinguishing media**

Strong water jet

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

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

**Hazardous combustion products**

Hazardous combustion products: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide, smoke, Nitrogen oxides (NO<sub>x</sub>).

**5.3 Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate affected area. Do not breathe vapours.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

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

#### For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

#### For cleaning up

Clean using cleansing agents. Do not use solvents.

### 6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

#### Advices on general occupational hygiene

When using do not eat, drink or smoke.

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

#### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetRSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

#### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

#### Storage class

LGK12 - non-combustible liquids that cannot be assigned to any of the above storage classes

#### Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

### 7.3 Specific end use(s)

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

	CAS No.	Substance name	Source	Long-term /short-term (Spitzenbegrenzung)
*	111-76-2	2-butoxyethanol	WEL	123 / 246 ( - ) mg/m <sup>3</sup> (may be absorbed through the skin)
*	1317-65-3	Limestone	WEL	10 / - ( - ) mg/m <sup>3</sup> (inhalable fraction)
*	1317-65-3	Limestone	WEL	4 / - ( - ) mg/m <sup>3</sup>

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			(respirable fraction)
*	14807-96-6	Talc (Mg <sub>3</sub> H <sub>2</sub> (SiO <sub>3</sub> ) <sub>4</sub> )	WEL 1 / - (-) mg/m <sup>3</sup> (respirable fraction)
*	13463-67-7	titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	WEL 4 / - (-) mg/m <sup>3</sup> (respirable fraction)
*	13463-67-7	titanium dioxide [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	WEL 10 / - (-) mg/m <sup>3</sup> (inhalable fraction)

**Additional information**

Long-term: Long-term occupational exposure limit value  
 short-term: short-term occupational exposure limit value

**Biological limit values**

CAS No.	Substance name	Source	Value/ Test material
*	111-76-2	2-butoxyethanol	BMGV 240 mmol/mol creatinine / urine end of exposure or end of shift

**DNEL worker**

CAS No.	Substance name	DNEL type	DNEL value	
*	111-76-2	2-butoxyethanol	DNEL acute dermal, short-term (systemic)	89 mg/kg
*	111-76-2	2-butoxyethanol	DNEL long-term dermal (systemic)	75 mg/kg
*	111-76-2	2-butoxyethanol	DNEL long-term inhalative (systemic)	98 mg/m <sup>3</sup>
*	111-76-2	2-butoxyethanol	DNEL acute inhalative (systemic)	633 mg/m <sup>3</sup>

**PNEC**

CAS No.	Substance name	PNEC type	PNEC Value	
*	111-76-2	2-butoxyethanol	PNEC aquatic, intermittent release	9.1 mg/L
*	111-76-2	2-butoxyethanol	PNEC sediment, marine water	3.46 mg/kg
*	111-76-2	2-butoxyethanol	PNEC soil, freshwater	2.8 mg/kg
*	111-76-2	2-butoxyethanol	PNEC sediment, freshwater	34.6 mg/kg
*	111-76-2	2-butoxyethanol	PNEC aquatic, freshwater	8.8 mg/L
*	111-76-2	2-butoxyethanol	PNEC aquatic, marine water	0.88 mg/L

**8.2 Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Personal protection equipment**

**Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

**Hand protection**

For prolonged or repeated handling the following glove material must be used:

Suitable material: NBR (Nitrile rubber)  
 Thickness of the glove material ≥ 0.4 mm  
 Breakthrough time ≥ 480 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.

Recommended glove articles: EN ISO 374

**Skin protection**

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

#### Eye/face protection

Eye glasses with side protection: EN 166

#### Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Anti-static clothing including shoes are recommended.

#### Remark

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

#### Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	Liquid	
Colour	grey	
Odour	characteristic	
pH at 23.0 °C (25%)	7.5 - 9.5	DIN 53785
Melting point/freezing point	> 90 °C	
	Source: Polymer	
Initial boiling point and boiling range	100 °C	
Flash point	not applicable	
flammability	not applicable	
Lower explosion limit at 20°C	1.1 Vol-%	
	Source: 2-butoxyethanol	
Upper explosion limit at 20°C	10.6 Vol-%	
	Source: 2-butoxyethanol	
Vapour pressure at 20°C	0.105 mbar	
Relative vapour density	not applicable	
Density at 20 °C	1.3 kg/l	
Water solubility at 20°C	partially soluble	
Partition coefficient: n-octanol/water	see section 12	
Auto-ignition temperature	232 °C	
	Source: 2-butoxyethanol	
Decomposition temperature	not determined	
Kinematic viscosity at 20 °C	90-100 KU	
Dynamic viscosity at 20 °C	90-100 KU	
Viscosity	> 40s / 6mm	
particle characteristics	not applicable	

### 9.2 Other information

Solid content	56.2 %
solvent content	8.7 %
Water content	35 %

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

### 10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

### 10.5 Incompatible materials

No further relevant information available.

### 10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

## SECTION 11: Toxicological information

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

#### Acute toxicity

Based on available data, the classification criteria are not met.

\* **1,2-benzisothiazol-3(2H)-one**

LD50: oral (Rat): = 450 mg/kg bw

\* **2-butoxyethanol**

LD50: oral (Rat): = 1,200 mg/kg

LC50: inhalative (Rat): = 3 mg/L (4 h)

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

#### Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

#### Overall assessment on CMR properties

Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

### 11.2 Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

## SECTION 12: Ecological information

### 12.1 Toxicity

Based on available data, the classification criteria are not met.

#### Algae toxicity

\* **1,2-benzisothiazol-3(2H)-one**

ErC50: (Pseudokirchneriella subcapitata): = 0.11 mg/L (72 h)

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- \* **2-butoxyethanol**  
ErC50: (*Pseudokirchneriella subcapitata*): = 1,840 mg/L (72 h)  
Method: OECD 201
- \* **Daphnia toxicity**  
**1,2-benzisothiazol-3(2H)-one**  
EC50 (*Daphnia magna* (Big water flea)): = 2.94 mg/L (48 h)
- \* **2-butoxyethanol**  
EC50 (*Daphnia magna* (Big water flea)): > 1,000 mg/L (48 h)
- \* **Fish toxicity**  
**1,2-benzisothiazol-3(2H)-one**  
LC50: (*Oncorhynchus mykiss* (Rainbow trout)): = 2.18 mg/L (96 h)
- \* **2-butoxyethanol**  
LC50: (*Lepomis macrochirus* (Bluegill)): = 1,490 mg/L (96 h)

#### 12.2 Persistence and degradability

No information available.

#### 12.3 Bioaccumulative potential

No information available.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7 Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

##### Waste codes/waste designations according to EWC/AVV

080112 - waste paint and varnish other than those mentioned in 08 01 11

##### Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

not applicable

#### 14.2 UN proper shipping name

##### Land transport (ADR/RID)

No dangerous good in sense of these transport regulations.

##### Sea transport (IMDG)

No dangerous good in sense of these transport regulations.

##### Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of these transport regulations.

#### 14.3 Transport hazard class(es)

not applicable

#### 14.4 Packing group

not applicable

#### 14.5 Environmental hazards

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Land transport (ADR/RID) not applicable  
Sea transport (IMDG) not applicable

**14.6 Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**14.7 Maritime transport in bulk according to IMO instruments**

No transport as bulk according to IBC Code.

**14.8 Additional information**

**Land transport (ADR/RID)**

not applicable

**Sea transport (IMDG)**

not applicable

**Air transport (ICAO-TI / IATA-DGR)**

not applicable

**SECTION 15: Regulatory information**

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

**EU legislation**

**Authorisations and/or restrictions on use**

**Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)**

Use restriction according to REACH annex XVII, no.: 03

**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

**Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]**

VOC value: 109 g/l

**Directive 2004/42/EC on the limitation of emissions of volatile organic compounds**

VOC limit value: 2004/42/IIA(i): 140 g/l (2010)

Maximum VOC content of the product in a ready to use condition: 109 g/L

This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

\* **Regulation (EU) No. 528/2012 on biocides**

\* biocide, active substance: reaction mass of 5-chloro-2- methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3- one (3:1)

\* biocide, active substance: bronopol (INN)

\* biocide, active substance: 1,2-benzisothiazol-3(2H)-one

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]**

**Hazard categories / Named dangerous substances**

This product is not classified according to Directive 2012/18/EU.

**National regulations**

Observe in addition any national regulations!

**Water hazard class**

\* **Substance/product listed in the following inventories**

\* Toxic Substances Control Act - US

**15.2 Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

**List of relevant hazard statements and/or precautionary statements from sections 2 to 15**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.

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H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]**

not applicable

**Key literature references and sources for data**

Data arise from reference works and literature.

**Abbreviations and acronyms**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

OEL: Occupational Exposure Limit Value

BLV: Biological limit values

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging

CMR: Carcinogenic, Mutagenic and Reprotoxic

DIN: German Institute for Standardization / German industrial standard

DNEL: Derived No-Effect Level

EAKV: European Waste Catalogue Directive

EC: Effective Concentration

EC: European Community

EN: European Standard

EU/EEA: European Economic Area

IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG Code: International Maritime Code for Dangerous Goods

ISO: International Organization for Standardization

LC: Lethal Concentration

LD: Lethal Dose

:

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD: Organisation for Economic Cooperation and Development

PBT: persistent, bioaccumulative, toxic

PNEC: Predicted No Effect Concentration

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

UN: United Nations

VOC: Volatile Organic Compounds

vPvB: very persistent and very bioaccumulative

**Indication of changes**

\* Data changed compared with the previous version.

replaces version: 2.0

replaces revision of: 6 Dec 2025