

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

### 1.1 Product identifier

Trade name: ZZ® 451

This product information pertains to the following products:

ZZ® 451 = Fire Protection Wrap

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

General use: Sealant tape (Fire protection agent)

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

Company name: ZAPP-ZIMMERMANN GmbH

Street/POB-No.: Marconistr. 7-9

Postal Code, city: 50769 Köln

Germany

WWW: www.z-z.de

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Telephone: +49 (0)221-97 061-0

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Department responsible for information:

Lars Volkmer,

Telephone: +49 (0)221-97061-160, e-mail Lars.Volkmer@kzim.de

### 1.4 Emergency telephone number

GIZ-Nord, Göttingen

Telephone: +49 551-19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Article not subject to hazard labelling or classification.

### 2.2 Label elements

#### Labelling (CLP)

not applicable

#### Special labelling

EUH210 Safety data sheet available on request.

### 2.3 Other hazards

Processing, e.g. by cutting, sawing or grinding, can produce particles and dust. Inhalation of dust may cause irritation of the respiratory system. Dust contact with the eyes can lead to mechanical irritation.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

The product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: Sealing agent on the basis of butyl caoutchouc (butyl rubber), Polyisobutylene, fillers and additives

The product does not contain dangerous substances above limits that need to be mentioned in this section according to applicable legislation.

Hazardous ingredients:

The actual concentration or concentration range is withheld as a trade secret.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

In case of inhalation: Not a probable route of exposure.

In case of development of vapours or dust: Provide fresh air.

In the event of discomfort seek medical treatment.

Following skin contact: Remove residues with soap and water. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

After eye contact: With eyelids open, wash out eyes for several minutes under flowing water. Remove contact lenses, if present and easy to do. Continue rinsing.

In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Ingestion is not considered a possible route of exposure.

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

Inhalation of dust may cause irritation of the respiratory system. Dust contact with the eyes can lead to mechanical irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, foam, dry extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

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

On heating or in case of fire toxic gases may form.

If heated to decomposition product may emit: Smoke, carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Use fine water spray to cool endangered containers.  
Do not allow fire water to penetrate into surface or ground water.

## SECTION 6: Accidental release measures

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

Provide adequate ventilation.

In the case of the formation of dust: Wear appropriate protective equipment. Do not breathe dust. Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse.

### 6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.

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

Take up mechanically, placing in appropriate containers for disposal. To clean the floor and all object contaminated by this material, use white spirit.

### 6.4 Reference to other sections

Refer additionally to section 8 and 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advices on safe handling: Wash hands before breaks and after work. When using do not eat, drink or smoke.  
For mechanical processing: Avoid generation of dust. Provide adequate ventilation.  
In the case of the formation of dust: Wear appropriate protective equipment. Do not breathe dust. Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse.  
Have eye wash bottle or eye rinse ready at work place.

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

Requirements for storerooms and containers:

Keep container tightly closed in a dry and well-ventilated place.  
storage temperature: 5 °C up to 25 °C

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

Local exhaust when handling heated material.  
Provide adequate ventilation.

## Personal protection equipment

### Occupational exposure controls

Respiratory protection:	Usually no personal respiratory protection necessary. For mechanical processing: Particulates filter P1 according to EN 143.
Hand protection:	Protective gloves according to EN ISO 374-1. Glove material: nitrile rubber, butyl caoutchouc (butyl rubber), polyvinyl alcohol Layer thickness: 1 mm Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed goggles according to EN ISO 16321-1.
Body protection:	Wear work clothes with long arms.
General protection and hygiene measures:	Wash hands before breaks and after work. When using do not eat, drink or smoke. Avoid generation of dust. Do not breathe dust. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

### Environmental exposure controls

Refer to "6.2 Environmental precautions".

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	solid
Colour:	Form: Sealant tape red brown
Odour:	mild, weak
Melting point/freezing point:	No data available
Boiling point:	No data available
Flammability:	No data available
Lower and upper explosion limit:	LEL (Lower Explosion Limit): not applicable UEL (Upper Explosive Limit): not applicable
Flash point:	> 180 °C
Auto-ignition temperature:	Not applicable
Decomposition temperature:	> 200 °C
pH:	neutral
Kinematic viscosity:	Not applicable
Water solubility:	insoluble
Partition coefficient n-octanol/water (log value):	No data available
Vapour pressure:	No data available
Density:	approx. 1.4 g/cm <sup>3</sup>
Relative vapour density:	Not applicable
Particle characteristics:	No data available

### 9.2 Other information

Explosive properties:	No data available
Oxidizing characteristics:	No data available

Auto-ignition temperature: No data available  
Solvent content: 0 %

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

Protect from excessive heat.

### 10.5 Incompatible materials

Acids, organic solvents

### 10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition: > 200 °C

## SECTION 11: Toxicological information

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

Toxicological effects: Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Lack of data.  
Serious eye damage/irritation: Lack of data.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Lack of data.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Lack of data.  
Reproductive toxicity: Lack of data.  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

## 11.2 Information on other hazards

Endocrine disrupting properties:

No data available

Other information:

No data available

## SECTION 12: Ecological information

### 12.1 Toxicity

Further details:

No data available

### 12.2 Persistence and degradability

Further details:

Product is not biodegradable.

Due to its high density, product does not float and, therefore, cannot be separated by normal light-density material separators.

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

The product does not contain any substances classified as PBT or vPvB.

### 12.6 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

General information:

Do not allow to penetrate into soil, waterbodies or drains.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste key number:

07 02 99 = wastes from the MFSU of plastics, synthetic rubber and man-made fibres:  
wastes not otherwise specified  
MFSU = manufacture, formulation, supply and use

Recommendation:

Dispose of waste according to applicable legislation.

#### Package

Recommendation:

Dispose of waste according to applicable legislation.

## Section 14. Transport information

### 14.1 UN number or ID number

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.2 UN proper shipping name

ADR/RID, ADN, IMDG, IATA-DGR:

Not restricted

### 14.3 Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR:

not applicable

### 14.5 Environmental hazards

Dangerous for the environment:

Substance/mixture is not environmentally  
hazardous according to the criteria of the UN  
model regulations.

Marine pollutant - IMDG: no

### 14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

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

No data available

## SECTION 15: Regulatory information

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

#### National regulations - EC member states

Volatile organic compounds (VOC):

0 % by weight

Further regulations, limitations and legal requirements:

No data available

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

**SECTION 16: Other information**

Reason of change: Changes in section 1: Changes of product list  
Changes in section 3: Composition/information on ingredients

Date of first version: 16/4/2015

Department issuing data sheet:  
see section 1: Department responsible for information

## Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
IATA: International Air Transport Association  
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  
IMDG Code: International Maritime Dangerous Goods Code  
IMO: International Maritime Organization  
LEL: Lower Explosion Limit  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
MFSU: Manufacture, formulation, supply and use  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
TRGS: Technical Rules for Hazardous Substances  
TSCA: Toxic Substance Control Act  
vPvB: Very persistent and very bioaccumulative