KLEIBERIT®

Information



Hot Melt Adhesive 788.3

Fields of application

Bonding of PVC, paper, veener and melamine edges with manual edge banding machines

Advantages

- Low processing temperature from 130° C
- Very good melting properties
- Very long open time

Properties of the bond

- Heat resistance depending on the type of edge - approx. 70° C
- Very good resistance to cold, down to -15° C

Properties of the adhesive

EVA Copolymers

Specific gravity:

approx. 1.16 g/cm3

Viscosity

Brookfield HBTD:

at 130 °C at 150 °C

 $135,000 \pm 20.000$ mPa.s $70,000 \pm 10,000 \text{ mPa.s}$ 50.000 ± 5.000 mPa.s

at 160 °C Melt index according

to DIN 53 735 (MFI 150/2,16):

approx. 125 \pm 25 g/ 10 minutes

Softening point

(ring and ball):

85 ± 5 °C

Application temperature: Delivery form:

130-160°C granules

Colour available: Identification:

ivory no. 20 identification not required

according to the German hazardous substances regulations GefStoffV (see our safety data sheet)

Attention:

When hot melt adhesives are melted and applied, vapours are set free and an unpleasant odour can occur, even if the recommended working temperature has been observed. Moreover if the prescribed working temperature is exceeded over a longer period, harmful decomposition products can develop. Precautions should be taken to eliminate the vapours, e.g. by using a suitable ventilation system.

Application techniques

The substrates for edge banding must be processed at exactly right angles and be free from dust. The boards and the edge material must be acclimatised to room temperature. The best moisture content of the wood is 8-10%. The room temperature should not be lower than 18° C. Draughts must be avoided.

Rate of feed:

From 5 m/minute

Cleaning

Tools can be cleaned with KLEIBERIT Cleaner 827.0.

Packaging

KLEIBERIT Hot Melt Adhesive 788.3

plastic sack, 25.0 kg net KLEIBERIT Cleaner 827.0

metal canister, 4.5 kg net

KLEIBERIT Hot Melt Adhesive 788.3 can be stored for approx. 2 years. Keep in a cool and dry place.

EX0104

KLEIBERIT®

Information



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Waste Disposal

Disposal of contents and/or containers should comply with all applicable federal, state and local regulations.

Our containers are made of recyclable material.

Service
Our application department may be consulted at any time without obligation. The
statements made herein are based on our experience gained to date. They are to be
considered as information without obligation. Please test and establish for yourself
the suitability of our products for your particular purposes. No liability exceeding the
value of our product can be derived from the foregoing statements. This also applies
to the technical consultancy service which is rendered free of charge and without
bilination. obligation,

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Safety Data Sheet acc. to OSHA HCS

Printing date 04/07/2015

Version-No. 4

Reviewed on 03/25/2015

1: Identification

- · 1.1. Product identifier
- · Trade name / Article No: KLEIBERIT 788.3
- \cdot 1.2. Relevant identified uses of the substance / mixture $\underline{\text{or}}$ uses advised against

No further relevant information available.

- · Application of the substance / the mixture Adhesives
- 1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier:

KLEBCHEMIE

M.G.Becker GmbH + Co. KG

Max Becker Str. 4

D - 76356 Weingarten / Baden

Germany

Information department:

EdgeCo Inc.

194 Candlewood Rd

Bay Shore, N.Y. 11706

Phone 1-800-644-6449 FAX 1-631-434-2775

· 1.4. Emergency telephone number:

email: hse@kleiberit.com

1-800-424-9300 (CHEMTREC) 1-800-451-1403 (SARA-HOTLINE)

2: Hazard(s) identification

- · 2.1. Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008 GHS/CLP

The product is not classified as hazardous to health or environment according to the CLP regulation.

- · 2.2. Label elements
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Hazardous Material (US)

This material is <u>not</u> considered as hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

- Classification system:
- · NFPA-ratings (scale 0 4) USA:



Health = 0 Fire = 1

Reactivity = 0

HMIS-ratings (scale 0 - 4) - USA:

Health = 0 Fire = 1

Reactivity = 0

- · CARCINOGENICITY NTP: No IARC: No OSHA: No
- · 2.3. Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

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3: Composition/information on ingredients

- · 3.2. Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components:
- CAS NO. Description Void

%

4: First-aid measures

- · 4.1. Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

After contact with the molten product, cool rapidly with cold water.

Generally the product does not irritate the skin.

If skin irritation continues, consult a doctor.

· After eve contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Seek medical treatment.
- · Information for doctor:
- · 4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

· 4.3. Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5: Fire-fighting measures

- 5.1. Extinguishing media
- Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- 5.2. Special hazards arising from the substance or mixture Not applicable
- 5.3. Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures Not required.
- · 6.2. Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3. Methods and material for containment and cleaning up:

Allow to solidify. Pick up mechanically.

Pick up mechanically.

6.4. Reference to other sections No dangerous substances are released.

7: Handling and storage

- Handling:
- 7.1. Precautions for safe handling

Any deposit of dust which cannot be avoided must be regularly removed.

Use appropriate industrial vacuum cleaners or central vacuum systems for dust removal.

Prevent formation of dust.

Information about protection against explosions and fires:

>> Protect against electrostatic charges. <<

Dust can combine with air to form an explosive mixture.

- · 7.2. Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles: No special measures required.

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- Information about storage in one common storage facility: Observe the national regulations.
- · Further information about storage conditions: None.
- · 7.3. Specific end use(s) No further relevant information available.

8: Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- 8.1. Control parameters
- Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2. Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Wash hands before breaks and at the end of work.

- Breathing equipment: Not required.
- Protection of hands: Heat resistant gloves
- · Eye protection: Safety glasses

9: Physical and chemical properties

- 9.1. Information on basic physical and chemical properties
- General Information
- Appearance:

Form:

Solid

Color:

According to product specification

· Odor:

Weak, characteristic

Change in condition

Boiling point/Boiling range:

Undetermined.

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Softening temperature / range: ca. 85 °C (ca. 185 °F)

· Flash Point:

Not determined

· Auto Igniting:

Product is not selfigniting.

Danger of Explosion:

Product does not present an explosion hazard.

· Explosion Limits:

Lower:

Not applicable

Upper:

Not applicable

· Vapor Pressure:

Not applicable

Density at 20 °C (68 °F):

ca. 1.2 g/cm3 (ca. 10.014 lbs/gal)

· Solubility in / Miscibility with

Water:

Insoluble.

Organic solvents:

0.0 %

9.2. Other information

No further relevant information available.

10: Stability and reactivity

- · 10.1. Reactivity see item 10.3
- · 10.2. Chemical stability Stable when stored and used properly.
- Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat.
- 10.3. Possibility of hazardous reactions No dangerous reactions known.
- · 10.4. Conditions to avoid No further relevant information available.
- · 10.5. Incompatible materials: No further relevant information available.

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· 10.6. Hazardous decomposition products: No dangerous decomposition products known.

11: Toxicological information

- · 11.1. Information on toxicological effects
- Acute toxicity:
- · Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories
- NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

- · 12.1. Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2. Persistence and degradability No further relevant information available.
- · Other information: The product is difficultly biodegradable.
- · 12.3. Bioaccumulative potential No further relevant information available.
- · 12.4. Mobility in soil No further relevant information available.
- 12.5. Results of PBT and vPvB assessment
- PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6. Other adverse effects No further relevant information available.

13: Disposal considerations

- · 13.1. Waste treatment methods
- · Recommendation:

Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- Uncleaned packagings:
- Recommendation:

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.

14:	Trans	port inf	formation

14.1. UN-Number

Void

· 14.2. UN proper shipping name

Void

DOT, IMDG

· Class

No dangerous good

· IATA

Class

Not classified as dangerous goods under IATA regulations

· 14.4. Packing group

14.5. Environmental hazards:

Void

Not applicable.

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14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

15: Regulatory information

• 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture See position 2 - Hazards Identification

Sara - USA:

· Section 355 (Extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act) - USA:

All components of this product are on TSCA.

· Proposition 65 - USA

Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity (Prop 65):

All ingredients are listed.

EPA (Environmental Protection Agency):

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health) - California/USA:

None of the ingredients is listed.

· National regulations:

VOC - Volatile Organic Compounds

· US (40CFR part59): VOC content [g / L] solid, 0 g / L

• 15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· USA: Relevant labels and warnings HAZCOM LABEL: NOT REQUIRED

Department issuing SDS: Safety & Environment

· Contact: Dr. Wolfgang Stüber

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the

International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

* Data compared to the previous version altered. -