Thermoplastic hotmelt adhesive for banding edge banding machines.

Fields of application

Bonding of

- Polyester edges
- CPL and melamine resin edges, also so called thin edges
- PVC and ABS edges (primed)
- Uncompressed resin-impregnated paper edges

Advantages

- Good melting properties
- Very clean processing
- No stringing
- High green strength

Properties of the adhesive

Base:

EVA-Copolymers

Specific weight:

approx. 1.03 g/cm³

Viscosity (Brookfield HBTD):

at 180°C: at 200°C:

80,000 ± 15,000 mPa s

50,000 ± 10,000 mPa s

Melting index according to

DIN 53 735 (MFI 150/2,16): $50 \pm 10 \text{ g} / 10 \text{ minutes}$

Softening point

(ring and ball):

105 ± 5°C

Process temperature:

- edge banders:

170 - 200℃

Lower temperatures may cause faulty gluing, higher temperatures maintained for a long time may damage the adhesive and lead to decomposition.

Delivery form:

granules

Colours:

beige-transparent

Identification:

not required according to the German hazardous substances regulations

GefStoffV

(see our safety data sheet).

When hotmelt 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 devices

Automatic edge banders with roller applicator

Application techniques

The substrates for edge bonding have to be processed at exact right angles and must be free from dust. The boards as well as the edges have to be acclimatised to room temperature. The most favourable moisture content of the wood is 8-10 %. The room temperature should not be lower than 18℃. Draughts should be avoided!

Temperature Control:

Regularly check the temperature directly at the application system by means of a laboratory thermometer, bimetal thermometer or by a thermometer with electrical contacts. Re-adjust if necessary. The thermometers installed in the machine may give incorrect reading after extended use.

Speed

Machine speed is 10-30 m/min., depending on width of edges; insufficient speed might result in faulty bondings.

Application quantity

Please adjust application quantities so that the adhesive can be seen at the edges of the bonding. You can check an even glue film with transparent PVC strips.



Hotmelt Adhesive 773.3

Post-processing

The bonded material can be processed immediately after bonding (sawing, routing, planing, etc.)

Cleaning

Tools can be cleaned with KLEIBERIT Cleaner 827.0.

Packaging

KLEIBERIT Hotmelt Adhesive 773.3:

Sack, 3 kg net PE sack, 20 kg net Carton with 45 cartridges, approx. 11 kg net KLEIBERIT Cleaner 827.0: metal canister, 4.5 kg net carton with 12 bottles at 0.7 kg net each

Additional packaging available upon request.

Storage

KLEIBERIT Hotmelt Adhesive 773.3 can be stored for approximately 2 years. Keep in a cool and dry place.

EX0811; replaces previous versions

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.

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 obligation.

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Safety Data Sheet acc. to OSHA HCS

Printing date 04/07/2015

Version-No. 3

Reviewed on 11/17/2014

1: Identification

- 1.1. Product identifier
- Trade name / Article No: KLEIBERIT 773.3
- 1.2. Relevant identified uses of the substance / mixture 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

USA

Phone 1-800-644-6449

FAX 1-631-434-2775

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

1.4. Emergency telephone number: email: hse@kleiberit.com

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 not 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 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.

(Contd. on page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 04/07/2015 Version-No. 3 Reviewed on 11/17/2014

Trade name / Article No: KLEIBERIT 773.3

(Contd. of page 1)

3: Composition/information on ingredients

- · 3.2. Mixtures
- · Description: Mixture of synthetic plastics, based on ethylene vinyl acetate
- Dangerous components:
- CAS NO. Description Void

%

· Additional information: For the wording of the listed risk phrases refer to section 16.

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.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · 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.
- 5.2. Special hazards arising from the substance or mixture No further relevant information available.
- 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.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 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.
- Information about storage in one common storage facility: Observe the national regulations.
- Further information about storage conditions: None.

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(Contd. of page 2)

· 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.

- Breathing equipment: Not required.
- · Protection of hands: Heat resistant gloves
- Material of gloves Synthetic gloves
- · Eye protection: Goggles recommended during refilling.

9: Physical and chemical properties

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

Form:

Solid

Color:

Different according to coloring

· Odor:

Weak, characteristic

· pH-value:

Not applicable

· Change in condition

Boiling point/Boiling range:

Undetermined.

Softening temperature / range: 105 +/- 5 °C (221 +/- 41 °F)

· Flash Point:

Not applicable.

· Auto Igniting:

Product is not selfigniting.

· Danger of Explosion:

Product does not present an explosion hazard.

Density at 20 °C (68 °F):

ca. 1.03 g/cm3 (ca. 8.595 lbs/gal)

· Solubility in / Miscibility with

Water:

Not miscible or difficult to mix.

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

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(Contd. of page 3)

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 preparations:

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.
- Additional ecological information:
- General notes:

Generally not hazardous for water

Do not allow product to reach sewage system or any water course.

- 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:

Empty contaminated packagings thoroughly. Disposal must be made according to official regulations. Non contaminated packagings can be used for recycling.

14: Transport information

· 14.1. UN-Number Void · 14.2. UN proper shipping name Void

· DOT, IMDG

Class No dangerous good

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Trade name / Article No: KLEIBERIT 773.3

· IATA

·Class

Not classified as dangerous goods under IATA regulations

Void

· 14.4. Packing group · 14.5. Environmental hazards:

Marine pollutant:

No

· 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):

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed. 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):

None of the ingredients is 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.

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 te 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