Printing date 11/04/2022 Reviewed on 11/04/2022

1 Identification

· Product identifier

· Trade name: EUKITT Microfix Mounting Medium

· Article number: 15320-35, 15322-35

· Application of the substance / the mixture Laboratory chemicals

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Electron Microscopy Sciences

1560 Industry Road

USA-Hatfield, PA 19440

Tel: 215-412-8400 Fax: 215-412-8450

email: sgkcck@aol.com www.emsdiasum.com

· Information department: Product safety department

· Emergency telephone number:

ChemTrec 1-800-424-9300 Contract CCN7661

1-703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flammable Liquids 3

H226 Flammable liquid and vapor.



GHS08 Health hazard

Carcinogenicity 2

H351 Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to the hearing organs through prolonged or repeated exposure.



GHS07

Acute Toxicity - Inhalation 4

H332 Harmful if inhaled.

Skin Irrititation 2

H315 Causes skin irritation.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS02

GHS07

GHS08

- · Signal word Warning
- · Hazard-determining components of labeling:

xylene

ethylbenzene

(Contd. on page 2)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

(Contd. of page 1)

· Hazard statements

Flammable liquid and vapor.

Harmful if inhaled.

Causes skin irritation.

Suspected of causing cancer.

May cause damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Use CO2, powder or water spray to extinguish.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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



Health = 1Fire = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 1Fire = 3

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description**: Mixture of the substances listed below with nonhazardous additions.

(Contd. on page 3)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

| | | (Contd. of page 2) |
|-------------|--------------|--------------------|
| · Dangerous | components: | |
| 1330-20-7 | xylene | >50-≤100% |
| 100-41-4 | ethylbenzene | ≤2.5% |

4 First-aid measures

- · Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

| · PAC-1: | | |
|-----------|--------------|---------|
| 1330-20-7 | xylene | 130 ppm |
| 100-41-4 | ethylbenzene | 33 ppm |

(Contd. on page 4)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

| | (Contd. of page 3) |
|-----------------------|--------------------|
| · PAC-2: | |
| 1330-20-7 xylene | 920* ppm |
| 100-41-4 ethylbenzene | 1100* ppm |
| · PAC-3: | |
| 1330-20-7 xylene | 2500* ppm |
| 100-41-4 ethylbenzene | 1800* ppm |

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect from heat.

Protect against electrostatic charges.

- · Conditions for safe storage, including any incompatibilities
- Storage
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

· 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.
- · Control parameters

| · Com | ponents with limit values that require monitoring at the workplace: | |
|-----------------------|---|--|
| 1330 | -20-7 xylene | |
| PEL | Long-term value: 435 mg/m³, 100 ppm | |
| REL | Short-term value: 655 mg/m³, 150 ppm Long-term value: 435 mg/m³, 100 ppm | |
| TLV | Long-term value: 20 ppm BEI, A4 | |
| 100-41-4 ethylbenzene | | |
| PEL | Long-term value: 435 mg/m³, 100 ppm | |
| REL | Short-term value: 545 mg/m³, 125 ppm Long-term value: 435 mg/m³, 100 ppm | |
| TLV | Long-term value: 20 ppm OTO, BEI, A3 | |

(Contd. on page 5)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

(Contd. of page 4)

· Ingredients with biological limit values:

1330-20-7 xylene

BEI 1.5 g/g creatinine

Medium: urine Time: end of shift

Parameter: Methylhippuric acids

100-41-4 ethylbenzene

BEI 0.15 g/g creatinine

Medium: urine

Time: end of shift at end of workweek

Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific)

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

-US

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

(Contd. of page 5)

| 9 Physical and chemical proper | ties | | | |
|---|--|--|--|--|
| · Information on basic physical and chemical properties | | | | |
| · General Information | | | | |
| · Appearance: | | | | |
| Form: | Liquid | | | |
| Color: | Colorless | | | |
| · Odor: | Aromatic | | | |
| · Odor threshold: | Not determined. | | | |
| · pH-value: | Not determined. | | | |
| · Change in condition | | | | |
| Melting point/Melting range: | Undetermined. | | | |
| Boiling point/Boiling range: | 136 °C (276.8 °F) | | | |
| · Flash point: | 23 °C (73.4 °F) | | | |
| · Flammability (solid, gaseous): | Flammable. | | | |
| · Ignition temperature: | 500 °C (932 °F) | | | |
| · Decomposition temperature: | Not determined. | | | |
| · Auto igniting: | Product is not selfigniting. | | | |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. | | | |
| · Explosion limits: | | | | |
| Lower: | 1.1 Vol % | | | |
| Upper: | 7 Vol % | | | |
| · Vapor pressure at 20 °C (68 °F): | 6.7 hPa (5 mm Hg) | | | |
| · Density: | Not determined. | | | |
| · Relative density | Not determined. | | | |
| · Vapor density | Not determined. | | | |
| · Evaporation rate | Not determined. | | | |
| · Solubility in / Miscibility with | | | | |
| Water: | Not miscible or difficult to mix. | | | |
| · Partition coefficient (n-octanol/wate | e r): Not determined. | | | |
| · Viscosity: | | | | |
| Dynamic: | Not determined. | | | |
| Kinematic: | Not determined. | | | |
| · Solvent content: | | | | |
| Organic solvents: | 61.0 % | | | |
| VOC content: | 61.00 % | | | |
| | 610.0 g/l / 5.09 lb/gal | | | |
| Solids content: | 0.0 % | | | |
| · Other information | No further relevant information available. | | | |

10 Stability and reactivity

· Reactivity No further relevant information available.

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

(Contd. of page 6)

- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

| | · LD/LC5 | · LD/LC50 values that are relevant for classification: | | | |
|------------------|----------|--|----------------------|--|--|
| 1330-20-7 xylene | | | | | |
| | Oral | LD50 | 4,300 mg/kg (rat) | | |
| | Dermal | LD50 | 2,000 mg/kg (rabbit) | | |

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful Irritant

· Carcinogenic categories

| · IARC (International Agency for Research on Cancer) | | | | | |
|--|---|------------|--|--|--|
| 1330-20-7 | xylene | 3 | | | |
| 100-41-4 | ethylbenzene | 2 <i>B</i> | | | |
| · NTP (National Toxicology Program) | | | | | |
| None of the ingredients is listed. | | | | | |
| · OSHA-Ca | · OSHA-Ca (Occupational Safety Health Administration) | | | | |
| None of the | None of the ingredients is listed. | | | | |

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

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

Danger to drinking water if even small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

(Contd. on page 8)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

· Other adverse effects No further relevant information available.

(Contd. of page 7)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

| UN-Number DOT, ADR, IMDG, IATA | UN1307 |
|---|----------------------------|
| UN proper shipping name | |
| DOT | Xylenes |
| ADR | 1307 XYLENES |
| IMDG, IATA | XYLENES |
| Transport hazard class(es) | |
| DOT | |
| <u> </u> | |
| | |
| RAMMARLE LOUID | |
| 3 | |
| Class | 3 Flammable liquids |
| Label | 3 |
| ADR, IMDG, IATA | |
| <u>^</u> | |
| | |
| | |
| | |
| Class | 3 Flammable liquids |
| Label | 3 |
| Packing group | |
| DOT, ADR, IMDG, IATA | III |
| Environmental hazards: | Not applicable. |
| Special precautions for user | Warning: Flammable liquids |
| Hazard identification number (Kemler code): | |
| EMS Number: | F-E,S-D |
| Stowage Category | A |
| Transport in bulk according to Annex II of | |
| MARPOL73/78 and the IBC Code | Not applicable. |

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

| Transport/Additional information: | |
|--|---|
| DOT | |
| Quantity limitations | On passenger aircraft/rail: 60 L |
| ~ . | On cargo aircraft only: 220 L |
| · <i>ADR</i> | |
| Excepted quantities (EQ) | Code: E1 |
| · · · · · · · · · · · · · · · · · · · | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 1000 ml |
| · IMDG | |
| Limited quantities (LQ) | 5L |
| Excepted quantities (\widetilde{EQ}) | Code: E1 |
| · · · · · · · · · · · · · · · · · · · | Maximum net quantity per inner packaging: 30 ml |
| | Maximum net quantity per outer packaging: 1000 ml |
| UN "Model Regulation": | UN 1307 XYLENES, 3, III |

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

All ingredients are listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

100-41-4 ethylbenzene

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

| · EPA (Environmental Protection Agency) | | |
|---|------------------|---|
| 1330-20-7 | xylene | I |
| 100-41-4 | ethylbenzene | D |
| mr rz /mi | 1 117 + 1,77 1 \ | |

· TLV (Threshold Limit Value)

1330-20-7 xylene A4

(Contd. on page 10)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

(Contd. of page 9)

100-41-4 ethylbenzene

A3

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms







GHS07

- · Signal word Warning
- · Hazard-determining components of labeling:

xylene

ethylbenzene

· Hazard statements

Flammable liquid and vapor.

Harmful if inhaled.

Causes skin irritation.

Suspected of causing cancer.

May cause damage to the hearing organs through prolonged or repeated exposure.

· Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Get medical advice/attention if you feel unwell.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

In case of fire: Use CO2, powder or water spray to extinguish.

Store in a well-ventilated place. Keep cool.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· 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.

(Contd. on page 11)

Printing date 11/04/2022 Reviewed on 11/04/2022

Trade name: EUKITT Microfix Mounting Medium

(Contd. of page 10)

· Contact:

· Date of preparation / last revision 11/04/2022 / -

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flammable Liquids 3: Flammable liquids - Category 3

Acute Toxicity - Inhalation 4: Acute toxicity - Category 4

Skin Irrititation 2: Skin corrosion/irritation - Category 2

Carcinogenicity 2: Carcinogenicity – Category 2

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) - Category 2

- U