

Safety Data Sheet according to EC-Regulation 91/155/EEC

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

BrazeTec h PASTE

Use of the substance/preparation

Brazing flux

Company/undertaking identification

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Emergency telephone / Office for advice

Advisory office in case of poisoning:

Tel.:

Telephone number of the company in case of emergencies:

Tel. +49 (0) 69 305-6420

2. Composition/information on ingredients

2.1 Chemical name	content %	symbol	R-phrases	EINECS, ELINCS
Potassium hydroxo-fluoroborate For complete wording of the R-phrases, refer to point 16.	50 - 80	Xn	22	286-925-2

3. Hazards identification

3.1 To people

See point 11 and 15.

Preparation is classified as hazardous in the sense of directive 1999/45/EC.

Ingestion:

Product is dangerous to health.

The following may occur:

Irritant effect to damaged skin.

Hazardous gasses are set free when processing product

Hydrogen fluoride formation possible.

On vapour formation:

Oedema of the lungs

Irritant to mucosa of the nose and throat.

3.2 To the environment

See point 12.

4. First aid measures

4.1 Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

In case of symptoms:

Medical supervision necessary due to possibility of delayed reaction.

4.2 Eye contact

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

4.3 Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately.

4.4 Ingestion

Rinse the mouth thoroughly with water.
Give copious water to drink - consult doctor immediately.

4.5 Special resources necessary for first aid

4.1:

On vapour formation:
Dexamethasone

In case of urge to cough - antitussive agents

4.4:

Dissolve effervescent calcium tablets in water and give to drink in small sips.
Gastric lavage

5. Fire-fighting measures

5.1 Suitable extinguishing media

Adapt to the nature and extent of fire.

5.2 Extinguishing media which must not be used for safety reasons

n.g.

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In case of fire the following can develop:

Fume
Irritant dusts / gases
Hydrofluoric acid
Fluorides

5.4 Special protective equipment for fire-fighters

Protective respirator with independent air supply
According to size of fire
Full protection, if necessary

5.5 Further information

Dispose of contaminated extinction water according to official regulations.

6. Accidental release measures

Refer to point 13. and for personal protection refer to point 8.

6.1 Personal precautions

Ensure sufficient supply of air.
Avoid build up of dust.
Avoid inhalation, and contact with eyes or skin.

6.2 Environmental measures

Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.
If leakage occurs, dam up.

6.3 Methods for cleaning up

Collect mechanically and dispose of according to point 13.
Diluting with water is possible.
Flush residue using copious water.

7. Handling and storage

7.1 Handling

Tips for safe handling:

See point 6.1
Ensure good ventilation.
Do not inhale dust/fume/mist.
Use working methods according to operating instructions.
General hygiene measures for the handling of chemicals are applicable.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Wash hands before breaks and at end of work.
Observe directions on label and instructions for use.

During processing:
Switch on available suction system.

7.2. Storage

Requirements for storage rooms and containers:

Store products only unopened, in original packing.

Special storage conditions:

See point 10.2

Only store at temperatures from 5°C to 30°C

Stability during storage:

> 6 months.

8. Exposure controls/personal protection

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AG values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Chemical Name	Hydrogen fluoride		
WEL-TWA: 1,8 ppm (1,5 mg/m ³) (as F) (WEL, EC)	WEL-STEL: 3 ppm (2,5 mg/m ³) (as F) (WEL, EC)	---	
BMGV: ---	Other information: ---		

Chemical Name	Fluorides (as F)		
WEL-TWA: 2,5 mg/m ³ (inorganic, as F) (WEL), 2,5 mg/m ³ (inorganic) (EC)	WEL-STEL: ---	---	
BMGV: ---	Other information: ---		

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AG = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BG = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

8.1 Respiratory protection:

Filter B E P3 EN 141

If OES or MEL is exceeded.

8.2 Hand protection:

Protective nitrile gloves (EN 374)

Rubber gloves (EN 374).

Protective hand cream recommended.

8.3 Eye protection:

8.4 Skin protection:

Tight fitting protective goggles with side protection (EN 166).
Protective working garments (e.g. safety shoes EN 344, long-sleeved protective working garments)

Additional information on hand protection - No tests have been performed.

Selection made for preparations according to the best available knowledge and information on the ingredients.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

9. Physical and chemical properties

Physical state:

Colour:

Or:

Yellow

Odour:

pH-value undiluted:

Boiling point/range (°C):

Melting point/range (°C):

Flash point (°C):

Flammability (solid/gas):

Paste

White

Odourless

~ 5,4 (10 g/l/20°C)

~ 110, Solvent

~ 500, Dried product

n.a.

n.a.

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Autoflammability:	n.a.
Minimum limit of explosion:	n.a.
Maximum limit of explosion:	n.a.
Vapour pressure:	n.a.
Density (g/ml):	~ 1,5-1,6 g/cm ³
Bulk density:	n.a.
Solubility in water:	~ 500 g/l (20°C)
Partition coefficient (n-octanol/water):	n.a.
Viscosity:	~ 120 - 250 dPas

10. Stability and reactivity

10.1 Conditions to avoid

See point 7

Stable when handled and stored correctly.

Strong heat

10.2 Materials to avoid

See point 7

Avoid contact with strong acids.

Sulphuric acid

10.3 Hazardous decomposition products

See point 5.3

Heating:

Hydrogen fluoride formation possible.

11. Toxicological information

11.1 Acute toxicity and immediate effects

Ingestion, LD50 rat oral (mg/kg):

744 *

Inhalation, LC50 rat inhal.(mg/l/4h):

n.v.

Skin contact, LD50 rat dermal (mg/kg):

k.D.v., Rabbit, Not irritant, *

Eye contact:

Not irritant, Rabbit, *

11.2 Delayed and chronic effects

Sensitization:

n.g.

Carcinogenicity:

n.g.

Mutagenicity:

n.g.

Reproductive toxicity:

n.g.

Narcosis:

n.g.

11.3. Further information

*:

Classification based on toxicological analyses.

12. Ecological information

Water hazard class (Germany):

1

Self classification:

Yes (VwVwS)

Persistence and degradability:

n.v.

Behaviour in sewage plants:

Precipitate fluoride with milk of lime and dispose of.

Aquatic toxicity:

n.v.

Ecological toxicity:

n.v.

13. Disposal considerations

13.1. for the material / preparation / residue

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

06 02 99 wastes not otherwise specified

12 01 99 wastes not otherwise specified

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16 05 07 discarded inorganic chemicals consisting of or containing dangerous substances

Recommendation:

Pay attention to local and national official regulations

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

13.2 for contaminated packing material

See point 13.1

Pay attention to local and national official regulations

14. Transport information

General statements

UN-Number: n.a.

Road/Rail-transport (ADR/RID)

Class/packing-group: n.a.

Classification code: n.a.

LQ: n.a.

Transport by sea

IMDG-code: n.a. (class/packing-group)

Marine Pollutant: n.a.

Transport by air

IATA: n.a. (class/secondary danger/packing-group)

Additional information:

Non-dangerous material according to Transport Regulations.

15. Regulatory information

Classification according to Dangerous Product Regulations incl. EC Directives (67/548/EEC and 1999/45/EC)

Indications of danger: Xn

Harmful

R-phrases:

22 Harmful if swallowed.

S-phrases:

23.d Do not breathe gas/vapour.

35 This material and its container must be disposed of in a safe way.

37 Wear suitable gloves.

Additions:

Potassium hydroxo-fluoroborate

Observe restrictions: Yes

Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation).

16. Other information

These details refer to the product as it is delivered.

Storage class VCI (Germany): 13

Revised points: 15

BGV D1 (VBG 15)

M 005

The following phrases represent the prescribed R-phrases for the ingredients (designated in point 2).

22 Harmful if swallowed.

Legend:

n.a. = not applicable / n.v., k.D.v. = not available / n.g. = not checked

OES = Occupational exposure standard / MEL = Maximum exposure limit / BMGV = Biological monitoring guidance value

AG = "Arbeitsplatzgrenzwert" (workplace limit value, Germany) / BG = "Biologischer Grenzwert" (biological limit value, Germany)

VbF = Regulations for flammable liquids (Austria)

WGK = water hazard class (Germany) - WGK 3 = very hazardous, WGK 2 = hazardous, WGK 1 = slightly hazardous to water

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VOC = Volatile organic compounds / AOX = Adsorbable organic halogen compounds
VwVwS = Administrative Order relating to substances hazardous to water (Germany)

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:

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