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1. Identification**Product identifier**

EP310N-A

UFI: QKW5-1YTH-N5NU-Y2FD

Recommended use of the chemical and restrictions on use**Use of the substance/mixture**

Adhesives, sealants

Details of the supplier of the safety data sheet

Company name: Hottinger Brüel & Kjaer
Street: Im Tiefen See 45
Place: D-64293 Darmstadt
Telephone: +49 (0)6151 803-0
Internet: www.hbm.com
Responsible Department: support@hbm.com

Emergency phone number: +49-30-18412-0**2. Hazard(s) identification****Classification of the chemical****Regulation (EC) No. 1272/2008**

Flammable liquids: Flam. Liq. 2
Serious eye damage/eye irritation: Eye Dam. 1
Respiratory or skin sensitization: Resp. Sens. 1
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)

Label elements**Regulation (EC) No. 1272/2008****Signal word:** Danger**Pictograms:****Hazard statements**

Highly flammable liquid and vapor
May cause an allergic skin reaction
Causes serious eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause drowsiness or dizziness

Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If experiencing respiratory symptoms: Call a poison center/doctor.

Special labelling of certain mixtures

Restricted to professional users.

Labelling of packages where the contents do not exceed 125 ml**Signal word:** Danger

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Pictograms:



Hazard statements

H317-H318-H334

Precautionary statements

P261-P280-P305+P351+P338-P342+P311

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures**Hazardous components**

CAS No	Components	Quantity
67-64-1	acetone; propan-2-one; propanone	90 - < 95 %
89-32-7	benzene-1,2:4,5-tetracarboxylic dianhydride; pyromellitic dianhydride	5 - < 10 %

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Components	Quantity
		Specific Conc. Limits, M-factors and ATE	
67-64-1	200-662-2	acetone; propan-2-one; propanone	90 - < 95 %
		inhalation: LC50 = 76 mg/l (vapours); dermal: LD50 = 20000 mg/kg; oral: LD50 = 5800 mg/kg	
89-32-7	201-898-9	benzene-1,2:4,5-tetracarboxylic dianhydride; pyromellitic dianhydride	5 - < 10 %
		oral: LD50 = 2250 mg/kg	

Further Information

No information available.

4. First-aid measures

Description of first aid measures**General information**

Remove affected person from the danger area and lay down. If unconscious but breathing normally, place in recovery position and seek medical advice. First aider: Pay attention to self-protection!

After inhalation

When in doubt or if symptoms are observed, get medical advice.

Provide fresh air.

In case of respiratory tract irritation, consult a physician.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting.

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Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

No information available.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**

Water spray jet, Dry extinguishing powder, Foam

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Highly flammable.

Vapors may form explosive mixtures with air.

Special protective equipment and precautions for fire-fighters

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

Co-ordinate fire-fighting measures to the fire surroundings.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures****General measures**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Use personal protection equipment. Do not allow to enter into surface water or drains. Treat the recovered material as prescribed in the section on waste disposal. Provide adequate ventilation.

Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow uncontrolled discharge of product into the environment.

Methods and material for containment and cleaning up**Other information**

Take up mechanically, placing in appropriate containers for disposal. Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage**Precautions for safe handling****Advice on safe handling**

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Further information on handling

Wear personal protection equipment (refer to section 8). Do not empty into drains. When using do not eat, drink, smoke, sniff.

Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed and in a well-ventilated place.
Do not allow to enter into surface water or drains.
Do not allow uncontrolled discharge of product into the environment.

Hints on joint storage

No information available.

Further information on storage conditions

No information available.

8. Exposure controls/personal protection**Control parameters****Exposure limits**

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
67-64-1	Acetone	1000	2400		TWA (8 h)	PEL
		250	590		TWA (8 h)	REL

Additional advice on limit values

No information available.

Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.
In use, may form flammable/explosive vapor-air mixture.
Use explosion-proof electrical equipment.
Use only non-sparking tools.

Protective and hygiene measures

When using do not eat or drink.
Do not breathe gas/fume/vapor/spray.
After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
Wear suitable protective clothing, gloves and eye/face protection.
Draw up and observe skin protection programme.

Eye/face protection

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. EN ISO 374
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working

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place concentration and quantity of hazardous substances.

Thickness of the glove material: $\geq 0,7\text{mm}$

Suitable gloves type NBR (Nitrile rubber)

Breakthrough time: $>480\text{ min}$

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Used working clothes should not be worn outside the work area.

Separate storage of work clothes.

Wear anti-static footwear and clothing

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Filtering device (full mask or mouthpiece) with filter: a

The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

Environmental exposure controls

Do not allow to enter into surface water or drains.

The vapors are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Physical state:

Color: colorless

Odor: resin

pH-Value: not determined

Changes in the physical state

Melting point/freezing point: not determined

Sublimation point: not determined

Softening point: not determined

Pour point: not determined

not determined:

Flash point: $< -20\text{ }^{\circ}\text{C}$

Sustaining combustion: No data available

Flammability

Solid/liquid: not determined

Gas: not determined

Explosive properties

not hazard of explosion according to EU A.14

Lower explosion limits: 2,5 vol. %

Upper explosion limits: 14,3 vol. %

Auto-ignition temperature: 535 $^{\circ}\text{C}$

Self-ignition temperature

Solid: not determined

Gas: not determined

Decomposition temperature: not determined

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Oxidizing properties

There are no data available on the mixture itself.

Vapor pressure: (at 20 °C)	246 hPa
Vapor pressure: (at 50 °C)	814 hPa
Density (at 20 °C):	0,82 g/cm ³
Bulk density:	not determined
Water solubility:	not determined

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Relative vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	92,10 %

Other information

Solid content: 7,90 %

No information available.

10. Stability and reactivity**Reactivity**

No information available.

Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Conditions to avoid

No information available.

Incompatible materials

No information available.

Hazardous decomposition products

No information available.

Further information

No information available.

11. Toxicological information**Information on toxicological effects****Toxicokinetics, metabolism and distribution**

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.

No information available.

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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
67-64-1	acetone; propan-2-one; propanone				
	oral	LD50 mg/kg	5800	Rat	RTECS
	dermal	LD50 mg/kg	20000	Rabbit	IUCLID
	inhalation (4 h) vapour	LC50	76 mg/l	Rat	
89-32-7	benzene-1,2:4,5-tetracarboxylic dianhydride; pyromellitic dianhydride				
	oral	LD50 mg/kg	2250	Rat	GESTIS

Irritation and corrosivity

Causes serious eye damage

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitizing effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled (benzene-1,2:4,5-tetracarboxylic dianhydride; pyromellitic dianhydride)

May cause an allergic skin reaction (benzene-1,2:4,5-tetracarboxylic dianhydride; pyromellitic dianhydride)

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

No information available.

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness (acetone; propan-2-one; propanone)

No information available.

Specific target organ toxicity (STOT) - repeated exposure

Repeated exposure may cause skin dryness or cracking.

No information available.

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

Aspiration hazard

Based on available data, the classification criteria are not met.

No information available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

No information available.

Practical experience

No information available.

Information on other hazards**Other information**

No information available.

Further information

No information available.

12. Ecological information**Ecotoxicity**

No information available.

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Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

No information available.

Further information

No information available.

13. Disposal considerations**Waste treatment methods****Disposal recommendations**

Dispose of waste according to applicable legislation.

Contaminated packaging

Uncleaned empty containers may contain product gases which form explosive mixtures with air.

14. Transport information**US DOT 49 CFR 172.101**

<u>UN/ID number:</u>	UN 1133
<u>Proper shipping name:</u>	Adhesives
<u>Transport hazard class(es):</u>	3
<u>Packing group:</u>	III
Hazard label:	3

**Marine transport (IMDG)**

<u>UN number:</u>	UN 1133
<u>UN proper shipping name:</u>	Adhesives
<u>Transport hazard class(es):</u>	3
<u>Packing group:</u>	III
Hazard label:	3



Special Provisions:	223, 955
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

<u>UN number:</u>	UN 1133
<u>UN proper shipping name:</u>	Adhesives
<u>Transport hazard class(es):</u>	3
<u>Packing group:</u>	III

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Hazard label: 3



Special Provisions: A3
 Limited quantity Passenger: 10 L
 Passenger LQ: Y344
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 355
 IATA-max. quantity - Passenger: 60 L
 IATA-packing instructions - Cargo: 366
 IATA-max. quantity - Cargo: 220 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No transport as bulk according to IBC Code.

15. Regulatory information**U.S. Regulations****National regulatory information**

SARA Section 304 CERCLA:

Acetone (67-64-1): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Acetone (67-64-1): Fire hazard, Immediate (acute) health hazard

benzene-1,2:4,5-tetracarboxylic dianhydride; pyromellitic dianhydride (89-32-7): Immediate (acute) health hazard

State Regulations**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information**Changes**

Revision date: 03/18/2021

Revision No: 1,4

This data sheet contains changes from the previous version in section(s): 3,8,15.

Classification for mixtures and used evaluation method according to GHS

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Dam. 1; H318	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
STOT SE 3; H336	Calculation method

Relevant H statements (full text)

H225 Highly flammable liquid and vapor
 H317 May cause an allergic skin reaction
 H318 Causes serious eye damage
 H319 Causes serious eye irritation

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H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H336	May cause drowsiness or dizziness
EUH066	Repeated exposure may cause skin dryness or cracking.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)