

Safety data sheet

according to Directive (EC) no. 1907/2006 and Directive (EU)
no. 453/2010 (REACH)



Trading Name: PYROSIT® NG Fire protection foam

Created on: 15.05.2018

Changed on: 22.05.2019

Number of pages: 9

1. Designation of the substance of the mixture and the company

Product identifier

Trading name: Fire protection foam PYROSIT® NG

Article number: 7203800

Type: FBS-S

1.1 Relevant identified uses of the substance or mixture and uses advised against

Di-/poly-isocyanate component to produce polyurethanes. For industrial purposes only.

1.2 Manufacturer/supplier

OBO Bettermann Holding GmbH & Co. KG

P.O. Box 1120

58694 Menden

Germany

1.3 Division providing information

Customer Service

Tel.: +49 2373 89 - 1700

export@obo.de

1.4 Emergency telephone number

REACH Registration of Chemicals GmbH

Tel.: +49 (0)700 24112112 (OBO)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Skin Irrit. 2; H315 Causes skin irritation.

Eye Irrit. 2; H319 Causes serious eye irritation.

Resp. Sens. 1; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1; H317 May cause an allergic skin reaction.

Carc. 2; H351 Suspected of causing cancer.

STOT SE 3; H335 May cause respiratory irritation.

STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard pictograms



GHS 08



Signal word

Danger

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dusts or mists.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P501	Dispose of contents/container to hazardous or special waste collection point.

Special labelling

EUH204	Contains isocyanates. May produce an allergic reaction. Contains Diphenylmethane diisocyanate (isomers, homologues).
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2.3 Other hazards

Persons with over-sensitive breath ways (e.g. asthma, chronic bronchitis) are not allowed to use the product due to safety regulations.

Vapours and aerosols are the main dangers to the respiratory tract.

Respiratory symptoms may still occur several hours after overexposure.

Special danger of slipping by leaking/spilling product.

Results of PBT and vPvB assessment:

No data available

3. Composition / information on ingredients**3.1 Substances**

not applicable

3.2 Mixtures

Hazardous ingredients

Ingredient	Designation	Content	Classification
EC No. 618-498-9 CAS 9016-87-9	Diphenylmethane diisocyanate (isomers, homologues)	10 - 30 %	Acute Tox. 4; H332. Skin Irrit. 2; H315. Eye Irrit. 2; H319. Resp. Sens. 1; H334. Skin Sens. 1; H317. Carc. 2; H351. STOT SE 3; H335. STOT RE 2; H373.

4. First aid measures

4.1 Description of first aid measures

General information

Immediately remove any wetted clothing, shoes or stockings.

Following inhalation

Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Do not allow victim to become chilled. Keep victim warm.

Keep victim calm and seek medical attention immediately.

If victim is at risk of losing consciousness, position and transport on their side.

Following skin contact

Immediately clean with water and soap and, if available, apply a generous amount of polyethylene glycol 400. In case of skin reactions, consult a physician.

Following eye contact

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Afterwards, consult an ophthalmologist immediately.

Following ingestion

Rinse mouth. Do not induce vomiting. Immediately get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. Causes skin irritation. May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Product causes irritation of respiratory tracts and may possibly increase sensitivity of skin and respiratory tracts. Treatment of the acute irritation or bronchial narrowing is mainly symptomatic. Depending on the scale of exposition, as well as aches and pains resulting, long-term medical care may be required.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, extinguishing powder, carbon dioxide

In case of large fires: also water spray jet

Extinguishing media which must not be used for safety reasons: strong water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Isocyanate vapours, traces of hydrogen cyanide, nitrous fumes, carbon monoxide

5.3 Advice for Firefighters

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective clothing to protect skin and eyes.

Additional information: Hazchem-Code: -

Heating causes rise in pressure with risk of bursting.

Cool endangered containers with water spray and, if possible, remove from danger zone.

Remove persons not involved upwind.

Do not allow water used to extinguish fire to enter drains, ground or waterways.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid exposure. Keep unprotected people away. Wear appropriate protective equipment.

Provide adequate ventilation. Avoid contact with the substance.

Use a breathing protection against vapours/aerosol.

6.2 Environmental precautions

Do not allow to penetrate into soil, waterbodies or drains.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal. Final cleaning.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

7. Handling and storage**7.1 Precautions for safe handling**

Advices on safe handling:

Avoid exposure - obtain special instructions before use.

Provide adequate ventilation, and local exhaust as needed.

Airflow should move away from persons.

The effectiveness of the facilities must be checked at regular intervals.

Avoid contact with skin and eyes. Wear appropriate protective equipment.

Do not breathe dusts or mists. Work place should be equipped with a shower and an eye rinsing apparatus.

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storerooms and containers**

Keep containers tightly closed and at a temperature between 5 °C and 30 °C. Keep in a cool, well-ventilated place. Keep container dry. Protect from humidity and water.

Do not allow the product to enter the ground.

Hints on joint storage

Keep away from food and drinks.

Further details: Use caution when opening containers under pressure.

7.3 Specific end use(s)

No information available.

8. Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limit values:**

CAS No.	Designation	Type	Limit value
9016-87-9	Diphenylmethane diisocyanate (isomers, homologues)	Great Britain: WEL-STEL	0.07 mg/m ³ (as -NCO)
		Great Britain: WEL-TWA	0.02 mg/m ³ (as -NCO)

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment**Respiratory protection**

Respiratory protection must be worn whenever the WEL levels have been exceeded.

Use combination filter type A2-P2 according to EN 14387.

Hand protection

Protective gloves according to EN 374

Glove material:

Nitrile rubber - NBR, >= 0.35 mm

Butyl caoutchouc (butyl rubber) - IIR, ≥ 0.5 mm

Fluororubber (Viton) - FKM, ≥ 0.4 mm

polyvinyl chloride - PVC, ≥ 0.5 mm

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye Protection

Tightly sealed goggles according to EN 166.

Body protection

Wear suitable protective clothing.

General protection and hygiene measures

Avoid exposure - obtain special instructions before use.

Avoid contact with the substance. Do not breathe dusts or mists.

Work place should be equipped with a shower and an eye rinsing apparatus.

Wash hands before breaks and after work.

Take off immediately all contaminated clothing.

Keep away from food, drink and animal feedingstuffs.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state at 20 °C and 101.3 kPa: liquid

Colour: red brown

Odour: characteristic

Odour threshold: no data available

pH value: not applicable

Melting point/freezing point: not determined

Initial boiling point and boiling range: not determined

Flash point/flash point range: not applicable

Evaporation rate: no data available

Flammability: not determined

Lower Explosion Limit: not applicable

Upper Explosive Limit: not applicable

Vapour pressure: at 25 °C: ≤ 0.00001 kPa

Vapour density: no data available

Density: approx. 1.3 g/mL

Water solubility: practically insoluble

Partition coefficient: n-octanol/water: not determined

Auto-ignition temperature: not applicable

Decomposition temperature: no data available

Viscosity, dynamic: not relevant

Explosive properties: no data available

Oxidizing characteristics: no

9.2 Other information

Bulk density: not applicable

10. Stability and reactivity

10.1 Reactivity

Reactions with alcohols, amines, liquid acids and bases.

Contact with Water liberates carbon dioxide.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Amines, alcohols, water

10.6 Hazardous decomposition products

Thermal decomposition: no data available

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Skin Irrit. 2; H315 = Causes skin irritation.

Serious eye damage/irritation: Eye Irrit. 2; H319 = Causes serious eye irritation.

Sensitisation to the respiratory tract: Resp. Sens. 1; H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation: Skin Sens. 1; H317 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Carc. 2; H351 = Suspected of causing cancer.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): STOT SE 3; H335 = May cause respiratory irritation.

Specific target organ toxicity (repeated exposure): STOT RE 2; H373 = May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Lack of data.

Other information

Persons with over-sensitive breath ways (e.g. asthma, chronic bronchitis) are not allowed to use the product due to safety regulations.

Information about Diphenylmethane diisocyanate (isomers, homologues):

A long-term studie with rats over two years with mechanically produced, inhalable aerosols (aerodyn. diametre of 95% under 5 µm) of polymer MDI (PMDI) and concentrations of 0.2, 1.0 and 6.0 mg PMDI/ m³ showed the following results:

The group of animals exposed to the highest concentration suffered an increased incidence of lung tumours, persistent inflammatory changes to the nose, respiratory tract and lungs, and yellowish deposits in the respiratory tract and lungs.

The animals in the 1.0 mg/m³ group exhibited slight irritation and inflammatory changes to the nose, respiratory tract and lungs, but did not develop lung tumours and/or deposits.

Animals in the 0.2 mg/m³ group suffered no irritation: this concentration was therefore deemed to constitute the 'no-effect level'.

Symptoms

In case of inhalation: Irritation of nose, throat, lung.

Headache, throat dryness, respiratory complaints, chest pressure.

May cause sensitization by inhalation. Susceptible persons may develop ailments and allergic reactions with some delay.

In case of ingestion: May be harmful if swallowed.

After contact with skin: In case of a prolonged contact tanning and irritating effects may occur.

After eye contact: Produces for a short time a weak reddening and tumefaction of the conjunctiva as well as a weak, reversible rendering turbid of the cornea.

12. Ecological information

12.1 Toxicity

Information about Diphenylmethane diisocyanate (isomers, homologues):

Bacterial toxicity: EC50 > 100 mg/L /3h

Daphnia toxicity: EC50 Daphnia magna: > 1000 mg/L /24h

Fish toxicity: LC0 Brachydanio rerio (zebra-fish): > 1000 mg/L /96 h.

12.2 Persistence and degradability

Forms carbon dioxide and turns into a hard and insoluble by-product (poly urea) on the water's edge. This reaction is intensified by surface-active substances (e.g. liquid soaps) or water soluble solvents. Based upon current knowledge, poly urea is inert and will not decompose.

12.3 Bioaccumulative potential

Not determined

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

13.1 Waste treatment methods

Recommendations

Product:

Non-reacted state:

ASN 080501*: Waste isocyanates *= Evidence for disposal must be provided.

Reacted state:

ASN 080410: waste adhesives and sealants other than those mentioned in 08 04 09.

Contaminated packaging:

Waste key number: 15 01 02 = Plastic packaging

Dispose of waste according to applicable legislation.

Handle contaminated packages in the same way as the substance itself.

Non-contaminated packages may be recycled.

14. Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR: not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR: not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR: not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR: not applicable

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations - Great Britain:

Hazchem-Code: -

No data available

National regulations - EC member states

Labelling of packaging with ≤ 125 mL content



Signal word: **Danger**

Hazard statements:

- | | |
|------|--|
| H317 | May cause an allergic skin reaction. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

Precautionary statements:

- | | |
|-----------|---|
| P201 | Obtain special instructions before use. |
| P260 | Do not breathe dusts or mists. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P284 | [In case of inadequate ventilation] wear respiratory protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water/soap. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P501 | Dispose of contents/container to hazardous or special waste collection point. |

National regulations - Denmark

MAL-Code: 00-3

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

16. Other information

Further information

Wording of the H-phrases under paragraph 2 and 3:

- H315 = Causes skin irritation.
- H317 = May cause an allergic skin reaction.
- H319 = Causes serious eye irritation.
- H332 = Harmful if inhaled.
- H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 = May cause respiratory irritation.
- H351 = Suspected of causing cancer.

H373 = May cause damage to organs through prolonged or repeated exposure.

EUH204 = Contains isocyanates. May produce an allergic reaction.

Department issuing data sheet

Technical documentation

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).