

Jotafloor PU Topcoat Comp B

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

| | |
|--------------------------------------|-------------------------------|
| Product name | : Jotafloor PU Topcoat Comp B |
| UFI | : RWA1-90DQ-F00K-NEJO |
| Product code | : 488 |
| Product description | : Hardener. |
| Product type | : Liquid. |
| Other means of identification | : Not available. |

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

Use in coatings - Industrial use
Use in coatings - Professional use

1.3 Details of the supplier of the safety data sheet

Jotun A/S
P.O.Box 2021
3202 Sandefjord
Norway

Tel: + 47 33 45 70 00
Fax: +47 33 45 72 42
E-mail: SDSJotun@jotun.no

National contact

Jotun Paints Europe (Ltd).
Unit K7, Marina Commercial Park
Centre Park Road
Cork
Ireland

Tel: +353 214 965955
Fax: +353 214 965992

SDSJotun@jotun.com

1.4 Emergency telephone number

Poisons Information Centre of Ireland: +353 1 809 3000 (8am-10pm, 7 days a week)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Flam. Liq. 3, H226
Acute Tox. 4, H332
Skin Sens. 1, H317
STOT SE 3, H335
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Jotafloor PU Topcoat Comp B

SECTION 2: Hazards identification

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

: Warning.

Hazard statements

: H226 - Flammable liquid and vapour.
 H317 - May cause an allergic skin reaction.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General

: Not applicable.

Prevention

: P280 - Wear protective gloves.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapour.

Response

: P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.

Storage

: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: hexane, 1,6-diisocyanato-, homopolymer
 hexamethylene-di-isocyanate

Supplemental label elements

: EUH204 - Contains isocyanates. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: As from August 24 2023 adequate training is required before industrial or professional use.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

: Not applicable.

Tactile warning of danger

: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

: None known.

Jotafloor PU Topcoat Comp B

SECTION 3: Composition/information on ingredients**3.2 Mixtures** : Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|--|---|-----------|--|--|---------|
| hexane, 1,6-diisocyanato-, homopolymer | REACH #: 01-2119488934-20 EC: 500-060-2 CAS: 28182-81-2 | ≥75 - ≤90 | Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335 | ATE [Inhalation (dusts and mists)] = 1.5 mg/l | [1] [2] |
| n-butyl acetate | REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 | <10 | Flam. Liq. 3, H226 STOT SE 3, H336 EUH066 | - | [1] [2] |
| hydrocarbons, C9, aromatics | REACH #: 01-2119455851-35 EC: 265-199-0 CAS: 128601-23-0 | <10 | Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | - | [1] |
| hexamethylene-di-isocyanate | REACH #: 01-2119457571-37 EC: 212-485-8 CAS: 822-06-0 | ≤0.3 | Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above. | ATE [Inhalation (vapours)] = 0.5 mg/l Resp. Sens. 1, H334: C ≥ 0.5% | [1] [2] |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Repeated or prolonged contact with irritants may cause dermatitis.

Contains Hexamethylene diisocyanate, oligomers, hexamethylene-di-isocyanate. May produce an allergic reaction.

Over-exposure signs/symptoms

| | |
|---------------------|---|
| Eye contact | : No specific data. |
| Inhalation | : Adverse symptoms may include the following: respiratory tract irritation coughing |
| Skin contact | : Adverse symptoms may include the following: irritation redness |
| Ingestion | : No specific data. |

4.3 Indication of any immediate medical attention and special treatment needed

| | |
|----------------------------|---|
| Notes to physician | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | : No specific treatment. |

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | |
|---------------------------------------|--|
| Suitable extinguishing media | : Recommended: alcohol-resistant foam, CO ₂ , powders, water spray or mist. |
| Unsuitable extinguishing media | : Do not use water jet. |

5.2 Special hazards arising from the substance or mixture

| | |
|--|--|
| Hazards from the substance or mixture | : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. |
| Hazardous combustion products | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates. |

Jotafloor PU Topcoat Comp B

SECTION 5: Firefighting measures**5.3 Advice for firefighters**

Special protective actions for fire-fighters : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13).

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Examination of lung function should be carried out on a regular basis on persons spraying this mixture.

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Care should be taken when re-opening partly-used containers. Precautions should be taken to minimise exposure to atmospheric humidity or water. CO₂ will be formed, which, in closed containers, could result in pressurisation. Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Put on appropriate personal protective equipment (see Section 8).

Never use pressure to empty. Container is not a pressure vessel.

Always keep in containers made from the same material as the original one.

Jotafloor PU Topcoat Comp B

SECTION 7: Handling and storage

Comply with the health and safety at work laws.

Do not allow to enter drains or watercourses.

Information on fire and explosion protection

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Seveso Directive - Reporting thresholds**Danger criteria**

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| P5c | 5000 tonne | 50000 tonne |

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters**Occupational exposure limits**

| Product/ingredient name | Exposure limit values |
|--|---|
| hexane, 1,6-diisocyanato-, homopolymer | EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser. STEL: 0.07 mg/m ³ , (as -NCO) 15 minutes. TWA: 0.02 mg/m ³ , (as -NCO) 8 hours. |
| n-butyl acetate | EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 966 mg/m ³ 15 minutes. STEL: 200 ppm 15 minutes. TWA: 724 mg/m ³ 8 hours. TWA: 150 ppm 8 hours. |
| hexamethylene-di-isocyanate | EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser. Notes: as NCO STEL: 0.07 mg/m ³ , (as -NCO) 15 minutes. TWA: 0.02 mg/m ³ , (as -NCO) 8 hours. |

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|--|------------------|-----------------------|--------------------------|--------------------------------|----------|
| hexane, 1,6-diisocyanato-, homopolymer | DNEL | Long term Inhalation | 0.5 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 1 mg/m ³ | Workers | Local |
| n-butyl acetate | DNEL | Short term Inhalation | 960 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 960 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 480 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 480 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 859.7 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Short term Inhalation | 859.7 mg/m ³ | General population [Consumers] | Local |
| | DNEL | Long term Inhalation | 102.34 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Long term Inhalation | 102.34 mg/m ³ | General population [Consumers] | Local |
| | DNEL | Short term Oral | 2 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Oral | 2 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Dermal | 6 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Dermal | 11 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 35.7 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 300 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 300 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 300 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 600 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 600 mg/m ³ | Workers | Systemic |
| DNEL | Long term Dermal | 3.4 mg/kg bw/day | General population | Systemic | |
| DNEL | Long term Dermal | 7 mg/kg bw/day | Workers | Systemic | |
| DNEL | Long term | 12 mg/m ³ | General | Systemic | |

Jotafloor PU Topcoat Comp B

SECTION 8: Exposure controls/personal protection

| | | | | | |
|-----------------------------|------|--------------------------------|-----------------------------|--------------------------------------|----------|
| hydrocarbons, C9, aromatics | DNEL | Inhalation Long term | 48 mg/m ³ | population Workers | Systemic |
| | DNEL | Inhalation Long term Dermal | 12.5 mg/ kg bw/day | Workers | Systemic |
| | DNEL | Inhalation Long term | 151 mg/m ³ | Workers | Systemic |
| | DNEL | Inhalation Long term Dermal | 7.5 mg/kg bw/day | General population [Consumers] | Systemic |
| | DNEL | Inhalation Long term | 32 mg/m ³ | General population [Consumers] | Systemic |
| | DNEL | Oral Long term | 7.5 mg/kg bw/day | General population [Consumers] | Systemic |
| hexamethylene-di-isocyanate | DNEL | Inhalation Long term | 0.035 mg/ m ³ | Workers | Local |
| | DNEL | Inhalation Short term | 0.07 mg/m ³ | Workers | Local |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-----------------------------|---------------------------|-----------------------|---------------|
| n-butyl acetate | Fresh water | 0.18 mg/l | - |
| | Marine | 0.018 mg/l | - |
| | Sewage Treatment Plant | 35.6 mg/l | - |
| | Fresh water sediment | 0.981 mg/kg dwt | - |
| | Marine water sediment | 0.0981 mg/kg dwt | - |
| | Soil | 0.0903 mg/kg dwt | - |
| hexamethylene-di-isocyanate | Fresh water | 0.0774 mg/l | - |
| | Marine | 0.00774 mg/l | - |
| | Sewage Treatment Plant | 8.42 mg/l | - |
| | Fresh water sediment | 0.01334 mg/kg dwt | - |
| | Marine water sediment | 0.001334 mg/kg dwt | - |
| | Soil | 0.0026 mg/kg dwt | - |
| | | | |

8.2 Exposure controls

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.

Examination of lung function should be carried out on a regular basis on persons spraying this mixture.

Appropriate engineering controls : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by the spray operator, even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn. (See Occupational exposure controls.)

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 8: Exposure controls/personal protection

Eye/face protection : Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves

Wear suitable gloves tested to ISO 374-1:2016.

Recommended, gloves(breakthrough time) > 8 hours: Teflon (> 0.35 mm), polyvinyl alcohol (PVA) (> 0.3 mm)

Not recommended, gloves(breakthrough time) < 1 hour: neoprene (> 0.35 mm), PVC (> 0.5 mm), Viton® (> 0.7 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: 4H/Silver Shield® (> 0.07 mm), butyl rubber (> 0.4 mm), nitrile rubber (> 0.4 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Self-contained respiratory equipment must be worn by spray operator, even when good ventilation is provided. By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask.

Environmental exposure controls : Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Characteristic.

Odour threshold : Not applicable.

Melting point/freezing point : Not applicable.

Initial boiling point and boiling range : Lowest known value: 126°C (258.8°F) (n-butyl acetate). Weighted average: 149.25°C (300.6°F)

Flammability : Not applicable.

Jotafloor PU Topcoat Comp B

SECTION 9: Physical and chemical properties

| | |
|--|---|
| Lower and upper explosion limit | : 1.4 - 7.6% |
| Flash point | : Closed cup: 47°C |
| Auto-ignition temperature | : Lowest known value: 280 to 470°C (536 to 878°F) (hydrocarbons, C9, aromatics). |
| Decomposition temperature | : Not available. |
| pH | : Not applicable. |
| Viscosity | : Kinematic (40°C): >20.5 mm ² /s |
| Solubility in water | : cold water Not soluble hot water Not soluble |
| Partition coefficient: n-octanol/ water | : Not available. |
| Vapour pressure | : Highest known value: 1.5 kPa (11.3 mm Hg) (at 20°C) (n-butyl acetate). Weighted average: 0.09 kPa (0.68 mm Hg) (at 20°C) |
| Evaporation rate | : 1 (n-butyl acetate) compared with butyl acetate |
| Density | : 1.13 g/cm ³ |
| Vapour density | : Highest known value: 4 (Air = 1) (n-butyl acetate). |
| Explosive properties | : Not available. |
| Oxidising properties | : Not available. |
| <u>Particle characteristics</u> | |
| Median particle size | : Not applicable. |

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

| | |
|--|--|
| 10.1 Reactivity | : The product reacts slowly with water, resulting in the production of carbon dioxide. |
| 10.2 Chemical stability | : Stable under recommended storage and handling conditions (see Section 7). |
| 10.3 Possibility of hazardous reactions | : In closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container. |
| 10.4 Conditions to avoid | : In a fire, hazardous decomposition products may be produced. |
| 10.5 Incompatible materials | : Keep away from: oxidising agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols. |
| 10.6 Hazardous decomposition products | : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates. |

Thermal decomposition (>200°C) may liberate relatively low concentrations of isocyanates.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. This takes into account, where known, delayed and

Jotafloor PU Topcoat Comp B**SECTION 11: Toxicological information**

immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Repeated or prolonged contact with irritants may cause dermatitis.

Contains Hexamethylene diisocyanate, oligomers, hexamethylene-di-isocyanate. May produce an allergic reaction.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------|---------------------------------|---------|-----------------------|----------|
| n-butyl acetate | LC50 Inhalation Vapour | Rat | >21.1 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 13100 mg/kg | - |
| hexamethylene-di-isocyanate | LC50 Inhalation Dusts and mists | Rat | 124 mg/m ³ | 4 hours |

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| Jotafloor PU Topcoat Comp B | N/A | N/A | N/A | 333.3 | 1.7 |
| hexane, 1,6-diisocyanato-, homopolymer | N/A | N/A | N/A | N/A | 1.5 |
| n-butyl acetate | 13100 | N/A | N/A | N/A | N/A |
| hexamethylene-di-isocyanate | N/A | N/A | N/A | 0.5 | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|------------------------------|-------|----------|-------------|
| hexane, 1,6-diisocyanato-, homopolymer | Eyes - Moderate irritant | Rabbit | - | 100 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 500 mg | - |
| hexamethylene-di-isocyanate | Eyes - Mild irritant | Mammal - species unspecified | - | - | - |
| | Skin - Mild irritant | Mammal - species unspecified | - | - | - |

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|--|-------------------|------------------------------|-------------|
| hexane, 1,6-diisocyanato-, homopolymer | skin | Mammal - species unspecified | Sensitising |
| hexamethylene-di-isocyanate | skin | Mammal - species unspecified | Sensitising |

Mutagenicity

No known significant effects or critical hazards.

Carcinogenicity

No known significant effects or critical hazards.

Reproductive toxicity

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Jotafloor PU Topcoat Comp B

SECTION 11: Toxicological information

| Product/ingredient name | Category | Route of exposure | Target organs |
|--|------------|-------------------|------------------------------|
| hexane, 1,6-diisocyanato-, homopolymer | Category 3 | - | Respiratory tract irritation |
| n-butyl acetate | Category 3 | - | Narcotic effects |
| hydrocarbons, C9, aromatics | Category 3 | - | Respiratory tract irritation |
| hexamethylene-di-isocyanate | Category 3 | - | Narcotic effects |
| | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

| Product/ingredient name | Result |
|-----------------------------|--------------------------------|
| hydrocarbons, C9, aromatics | ASPIRATION HAZARD - Category 1 |

11.2 Information on other hazards**11.2.1 Endocrine disrupting properties**

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information**12.1 Toxicity**

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|-----------------------------|---------------------|---------|----------|
| hydrocarbons, C9, aromatics | Acute EC50 <10 mg/l | Daphnia | 48 hours |
| | Acute IC50 <10 mg/l | Algae | 72 hours |
| | Acute LC50 <10 mg/l | Fish | 96 hours |

Conclusion/Summary : This material is harmful to aquatic life with long lasting effects.**12.2 Persistence and degradability****Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-----------------------------|-------------------|------------|------------------|
| hydrocarbons, C9, aromatics | - | - | Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|------------|-----------|
| hexane, 1,6-diisocyanato-, homopolymer | 5.54 | 367.7 | low |
| n-butyl acetate | 2.3 | - | low |
| hydrocarbons, C9, aromatics | - | 10 to 2500 | high |
| hexamethylene-di-isocyanate | 0.02 | 57.63 | low |

12.4 Mobility in soil

Jotafloor PU Topcoat Comp B

SECTION 12: Ecological information**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods**Product****Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.**Hazardous waste** : Yes.**Disposal considerations** : Do not allow to enter drains or watercourses. Residues in empty containers should be neutralised with a decontaminant (see section 6). Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.**European waste catalogue (EWC)**

The European Waste Catalogue classification of this product, when disposed of as waste, is:

| Waste code | Waste designation |
|------------|---|
| 08 01 11* | Waste paint and varnish containing organic solvents or other dangerous substances |

Packaging**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.





| Type of packaging | European waste catalogue (EWC) |
|-------------------|--|
| CEPE Guidelines | 15 01 10* packaging containing residues of or contaminated by hazardous substances |

Jotafloor PU Topcoat Comp B

SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|--|--|--|---|--|
| 14.1 UN number or ID number | UN1866 | UN1866 | UN1866 | UN1866 |
| 14.2 UN proper shipping name | Resin solution | Resin solution | Resin solution | Resin solution |
| 14.3 Transport hazard class(es) | 3  | 3  | 3  | 3  |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | No. | Yes. | No. | No. |

Additional information

ADR/RID

: **Hazard identification number** 30
Tunnel code (D/E)

ADR/RID: Viscous substance. Not restricted, ref. chapter 2.2.3.1.5 (applicable to receptacles < 450 litre capacity).

ADN

: The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

IMDG

: **Emergency schedules** F-E, S-E

IMDG: Viscous substance. Transport in accordance with paragraph 2.3.2.5 (applicable to receptacles < 450 litre capacity).

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Jotafloor PU Topcoat Comp B

SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : As from August 24 2023 adequate training is required before industrial or professional use.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : Not available.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment : Not applicable.

Jotafloor PU Topcoat Comp B**SECTION 16: Other information**

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|--|---|
| Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412 | On basis of test data Calculation method Calculation method Calculation method Calculation method |

Full text of abbreviated H statements

| | |
|--------|--|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Full text of classifications [CLP/GHS]

| | |
|-------------------|---|
| Acute Tox. 2 | ACUTE TOXICITY - Category 2 |
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Asp. Tox. 1 | ASPIRATION HAZARD - Category 1 |
| Eye Irrit. 2 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 |
| Flam. Liq. 3 | FLAMMABLE LIQUIDS - Category 3 |
| Resp. Sens. 1 | RESPIRATORY SENSITISATION - Category 1 |
| Skin Irrit. 2 | SKIN CORROSION/IRRITATION - Category 2 |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |

Date of printing : 05.04.2023

Date of issue/ Date of revision : 05.04.2023

Date of previous issue : 27.03.2023

Version : 1.01

Notice to reader

Jotafloor PU Topcoat Comp B

SECTION 16: Other information

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.