SAFETY DATA SHEET

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

1.1. Product identifier

Trade name
Junckers Liquid Moisture Barrier
Product no.
H40
REACH registration number
Not applicable

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

Relevant identified uses of the substance or mixture
Moisture barrier for concrete
Uses advised against
For professional use only.
The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address
Junckers Industrier A/S
Vaerftsvej 4
4600 Koege
Denmark
Tel. +45 70 80 30 00
Contact person

E-mail
productsafety@junckers.dk
SDS date
2020-11-10
SDS Version
5.0

1.4. Emergency telephone number

Contact the National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Irrit. 2; H315
Skin Sens. 1; H317
Eye Irrit. 2; H319
Acute Tox. 4; H332
Resp. Sens. 1; H334
STOT SE 3; H335
Carc. 2; H351
STOT RE 2; H373
See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Causes skin irritation. (H315)
May cause an allergic skin reaction. (H317)
Causes serious eye irritation. (H319)
Harmful if inhaled. (H332)
May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)
May cause respiratory irritation. (H335)
Suspected of causing cancer. (H351)
May cause damage to organs through prolonged or repeated exposure. (H373)

Precautionary statements

General	-
Prevention	Do not breathe vapours. (P260). Wear protective gloves/protective clothing/eye protection/face protection. (P280). [In case of inadequate ventilation] wear respiratory protection. (P284).
Response	IF ON SKIN: Wash with plenty of water and soap. (P302+P352). IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340). If experiencing respiratory symptoms: Call a POISON CENTER/doctor (P342+P311).
Storage	-
Disposal	-

Identity of the substances primarily responsible for the major health hazards

4,4'-Methylenediphenyl diisocyanate; Prepolymer based on aromatic polyisocyanate; 2,4'-Methylenediphenyl diisocyanate; Diphenylmethane diisocyanate, isomeric and homologous; 2,2'-Methylenediphenyl diisocyanate

Additional labelling

-

Unique formula identifier (UFI)

9F30-N0V2-W00U-9G51

2.3. Other hazards

Not applicable

Additional warnings

Not applicable

VOC (volatile organic compound)

Not applicable

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

NAME:	4,4'-Methylenediphenyl diisocyanate
IDENTIFICATION NOS.:	CAS-no: 101-68-8 EC-no: 202-966-0 Index-no: 615-005-00-9
CONTENT:	25-40%
CLP CLASSIFICATION:	Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Acute Tox. 4, Resp. Sens. 1, STOT SE 3, Carc. 2, STOT RE 2 H315, H317, H319, H332, H334, H335, H351, H373
NOTE:	I

NAME:	Prepolymer based on aromatic polyisocyanate
IDENTIFICATION NOS.:	CAS-no: 67815-87-6
CONTENT:	25-40%
CLP CLASSIFICATION:	Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Resp. Sens. 1, STOT SE 3, STOT RE 2

	H315, H317, H319, H334, H335, H373
NOTE:	P
NAME:	2,4'-Methylenediphenyl diisocyanate
IDENTIFICATION NOS.:	CAS-no: 5873-54-1 EC-no: 227-534-9 Index-no: 615-005-00-9
CONTENT:	15-<25%
CLP CLASSIFICATION:	Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Acute Tox. 4, Resp. Sens. 1, STOT SE 3, Carc. 2, STOT RE 2 H315, H317, H319, H332, H334, H335, H351, H373
NOTE:	I
NAME:	Diphenylmethane diisocyanate, isomeric and homologous
IDENTIFICATION NOS.:	CAS-no: 9016-87-9
CONTENT:	2.5-<5%
CLP CLASSIFICATION:	Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Acute Tox. 4, Resp. Sens. 1, STOT SE 3, Carc. 2, STOT RE 2 H315, H317, H319, H332, H334, H335, H351, H373
NOTE:	P
NAME:	2,2'-Methylenediphenyl diisocyanate
IDENTIFICATION NOS.:	CAS-no: 2536-05-2 EC-no: 219-799-4 Index-no: 615-005-00-9
CONTENT:	2.5-<5%
CLP CLASSIFICATION:	Skin Irrit. 2, Skin Sens. 1, Eye Irrit. 2, Acute Tox. 4, Resp. Sens. 1, STOT SE 3, Carc. 2, STOT RE 2 H315, H317, H319, H332, H334, H335, H351, H373
NOTE:	I

(*) See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.
P = Prepolymer isocyanate. I = Isocyanate monomer.

Other information

ATEmix(inhale, dust/mist) = 1,7176 -
Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 13,5792 - 20,3688
Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 13,5792 - 20,3688

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact the National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with soap and water. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 15 minutes and continue until irritation stops. Make sure to flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Sensitisation: This product contains substances, which may produce an allergic reaction through inhalation. The allergic reaction is typically taking place within an hour subsequent to exposure. The reaction results in an inflammatory reaction to the lungs.
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

If experiencing respiratory symptoms: Call a POISON CENTER/doctor

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: Alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Nitrogen oxides, carbon oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours from spilled material. Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities. It is recommended to install waste collection trays to prevent emissions to the wastewater system and surrounding environment.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section on “Disposal considerations” in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature

Store in cool, dry conditions in well sealed receptacles.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

2,2'-Methylenediphenyl diisocyanate
Long-term exposure limit (8-hour TWA reference period): - ppm | 0,02 mg/m³
Short-term exposure limit (15-minute reference period): - ppm | 0,07 mg/m³
Comments: Sen (Sen = Capable of causing respiratory sensitisation.)

2,4'-Methylenediphenyl diisocyanate
Long-term exposure limit (8-hour TWA reference period): - ppm | 0,02 mg/m³
Short-term exposure limit (15-minute reference period): - ppm | 0,07 mg/m³
Comments: Sen (Sen = Capable of causing respiratory sensitisation.)

4,4'-Methylenediphenyl diisocyanate
Long-term exposure limit (8-hour TWA reference period): - ppm | 0,02 mg/m³
Short-term exposure limit (15-minute reference period): - ppm | 0,07 mg/m³
Comments: Sen (Sen = Capable of causing respiratory sensitisation.)

DNEL / PNEC

DNEL (4,4'-Methylenediphenyl diisocyanate): 50 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers

DNEL (4,4'-Methylenediphenyl diisocyanate): 100 µg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - Workers

DNEL (4,4'-Methylenediphenyl diisocyanate): 25 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - General population

DNEL (4,4'-Methylenediphenyl diisocyanate): 50 µg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - General population

DNEL (2,4'-Methylenediphenyl diisocyanate): 50 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers

DNEL (2,4'-Methylenediphenyl diisocyanate): 100 µg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - Workers

DNEL (2,4'-Methylenediphenyl diisocyanate): 25 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - General population

DNEL (2,4'-Methylenediphenyl diisocyanate): 50 µg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - General population

DNEL (2,2'-Methylenediphenyl diisocyanate): 50 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers

DNEL (2,2'-Methylenediphenyl diisocyanate): 100 µg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - Workers

DNEL (2,2'-Methylenediphenyl diisocyanate): 25 µg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - General population

DNEL (2,2'-Methylenediphenyl diisocyanate): 50 µg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - General population

PNEC (4,4'-Methylenediphenyl diisocyanate): 1 mg/l
Exposure: Freshwater

PNEC (4,4'-Methylenediphenyl diisocyanate): 10 mg/l
Exposure: Intermittent release
Remarks: (freshwater)

PNEC (4,4'-Methylenediphenyl diisocyanate): 0,1 mg/l
Exposure: Marine water

PNEC (4,4'-Methylenediphenyl diisocyanate): 1 mg/l
Exposure: Sewage Treatment Plant

PNEC (4,4'-Methylenediphenyl diisocyanate): 1 mg/kg dw
Exposure: Soil

PNEC (2,4'-Methylenediphenyl diisocyanate): 1 mg/l
Exposure: Freshwater

PNEC (2,4'-Methylenediphenyl diisocyanate): 10 mg/l
Exposure: Intermittent release
Remarks: (freshwater)

PNEC (2,4'-Methylenediphenyl diisocyanate): 0,1 mg/l
Exposure: Marine water

PNEC (2,4'-Methylenediphenyl diisocyanate): 1 mg/l
Exposure: Sewage Treatment Plant

PNEC (2,4'-Methylenediphenyl diisocyanate): 1 mg/kg dw
Exposure: Soil

PNEC (2,2'-Methylenediphenyl diisocyanate): 1 mg/l
Exposure: Freshwater

PNEC (2,2'-Methylenediphenyl diisocyanate): 10 mg/l
Exposure: Intermittent release
Remarks: (freshwater)

PNEC (2,2'-Methylenediphenyl diisocyanate): 0,1 mg/l
Exposure: Marine water

PNEC (2,2'-Methylenediphenyl diisocyanate): 1 mg/l
Exposure: Sewage Treatment Plant

PNEC (2,2'-Methylenediphenyl diisocyanate): 1 mg/kg dw
Exposure: Soil

8.2. Exposure controls

Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.

General recommendations

Observe general occupational hygiene standards.

Exposure scenarios

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Exhaust air that contains the substances shall not be recirculated.Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of an exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

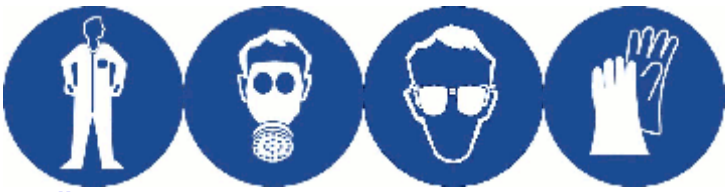
Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep containment materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment



Generally

Use only CE marked protective equipment.

Respiratory Equipment

Recommended: A. Class 2 (medium capacity). Brown

Skin protection

Dedicated work clothing should be worn. Wear a protective suit in the event of prolonged periods of work with the product.

Hand protection

Nitrile rubber
Material thickness: 0,4 mm.
Discard immediately after use

Eye protection

Wear safety glasses with side shields.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Liquid
Colour	Amber
Odour	Faint
Odour threshold (ppm)	No data available
pH	No data available
Viscosity (40°C)	No data available
Density (g/cm³)	1,18

Phase changes

Melting point (°C)	No data available
Boiling point (°C)	No data available
Vapour pressure	No data available
Decomposition temperature (°C)	No data available
Evaporation rate (n-butylacetate = 100)	No data available

Data on fire and explosion hazards

Flash point (°C)	110
Ignition (°C)	No data available
Auto flammability (°C)	No data available
Explosion limits (% v/v)	No data available
Explosive properties	No data available

Solubility

Solubility in water	Insoluble
n-octanol/water coefficient	No data available

9.2. Other information

Solubility in fat (g/L)	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Curing time 40-60 min.

10.3. Possibility of hazardous reactions

Nothing special

10.4. Conditions to avoid

Nothing special

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products
The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
May cause an allergic skin reaction.May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity
No data available

Carcinogenicity
Suspected of causing cancer.

Reproductive toxicity
No data available

STOT-single exposure
May cause respiratory irritation.

STOT-repeated exposure
May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard
No data available

Long term effects
Carcinogenic effects: This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion. Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

SECTION 12: Ecological information

12.1. Toxicity
No data available

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result

No data available

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF

No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment
This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects
Nothing special

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product is covered by the regulations on hazardous waste.

Waste

EWC code

08 05 01*	waste isocyanates

Specific labelling

Not applicable

Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4

Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID

14.1. UN number	-
14.2. UN proper shipping name	-
14.3. Transport hazard class(es)	-
14.4. Packing group	-
Notes	-
Tunnel restriction code	-

IMDG

UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-
EmS	-
MP**	-
Hazardous constituent	-

IATA/ICAO

UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-

14.5. Environmental hazards

-

14.6. Special precautions for user

-

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

No data available

(*) Packing group
(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.
Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

Use of this product requires dedicated training in work with polyurethane and epoxy products.

Additional information

Not applicable

Seveso

-

Biocidal reg. no.

Not applicable

Sources

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.
Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.
The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 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¤.

The full text of identified uses as mentioned in section 1

-

Additional label elements

Not applicable

Other

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:
The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by

ULS

Date of last essential change
(First cipher in SDS version)

2019-10-22(4.0)

Date of last minor change
(Last cipher in SDS version)

2019-10-22