SAFETY DATA SHEET

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

1.1. Product identifier

Trade name
Wood Glue PU Light 421
Product no.
421
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
Wood glue.
Uses advised against
-
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
Dana Lim A/S
Københavnsvej 220
DK-4600 Køge
Denmark
phone: +45 56 64 00 70
fax: +45 56 64 00 90
Contact person
Product Safety Department
E-mail
info@danalim.dk
SDS date
2018-08-21
SDS Version
6.0

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
Aquatic Chronic 2; H411
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)
Toxic to aquatic life with long lasting effects. (H411)

Safety statement(s)

General	If medical advice is needed, have product container or label at hand. (P101). Keep out of reach of children. (P102).
Prevention	Use only outdoors or in a well-ventilated area. (P271). Wear gloves/eye protection. (P280).
Response	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	Dispose of contents/container to an approved waste disposal plant. (P501).

Identity of the substances primarily responsible for the major health hazards

Prepolymer based on aromatic polyisocyanate, 4,4´-methylenediphenyl diisocyanate, o-(p-isocyanatobenzyl)phenyl isocyanate

2.3. Other hazards

Not applicable

Additional labelling

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
Please use the attached protective gloves! Maximum period of use: 5 minutes. Throw away after use, do not re-use. Contains isocyanates. May produce an allergic reaction. (EUH204)

Additional warnings

Tactile warning.

VOC

Not applicable

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

NAME:	Prepolymer based on aromatic polyisocyanate
IDENTIFICATION NOS.:	CAS-no: 99784-49-3
CONTENT:	60-80%
CLP CLASSIFICATION:	Acute Tox. 4, STOT RE 2, STOT SE 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1 H315, H317, H319, H332, H334, H335, H373
NOTE:	P

NAME:	o-(p-isocyanatobenzyl)phenyl isocyanate
IDENTIFICATION NOS.:	CAS-no: 5873-54-1 EC-no: 227-534-9 Index-no: 615-005-00-9
CONTENT:	15 - <25%

CLP CLASSIFICATION:	Acute Tox. 4, STOT RE 2, STOT SE 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2 H315, H317, H319, H332, H334, H335, H351, H373
NOTE:	I
NAME:	4,4´-methylenediphenyl diisocyanate
IDENTIFICATION NOS.:	CAS-no: 101-68-8 EC-no: 202-966-0 REACH-no: 01-2119457014-47-xxxx Index-no: 615-005-00-9
CONTENT:	15 - <25%
CLP CLASSIFICATION:	Acute Tox. 4, STOT RE 2, STOT SE 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 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) = 1,2 -
Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 11,2 - 16,8
Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 11,2 - 16,8
N chronic (CAT 2) Sum = Sum(Ci/(M(chronic)i*25)*0.1*10^CATi) = > 1 - 1,44

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 111, 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 waste water 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. It is recommended to install waste collection trays to prevent emissions to the waste water system and surrounding environment. 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

Frost free

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

No substances are listed in The Control of Substances Hazardous to Health Regulations with an occupational exposure limit.

DNEL / PNEC

DNEL (o-(p-isocyanatobenzyl)phenyl isocyanate): 50 mg/kg body weight/day
Exposure: Dermal
Duration of Exposure: Short term
Remarks: Systemic

DNEL (o-(p-isocyanatobenzyl)phenyl isocyanate): 28,7 mg/cm3

Exposure: Dermal
Duration of Exposure: Short term
Remarks: Local

DNEL (o-(p-isocyanatobenzyl)phenyl isocyanate): 0,1 mg/m3 air
Exposure: Inhalation
Duration of Exposure: Short term
Remarks: Systemic and local

DNEL (o-(p-isocyanatobenzyl)phenyl isocyanate): 0,05 mg/m3 air
Exposure: Inhalation
Duration of Exposure: Long term
Remarks: Systemic and local

DNEL (4,4´-methylenediphenyl diisocyanate): 50 mg/m3 body weight/day
Exposure: Dermal
Duration of Exposure: Short term
Remarks: Systemic

DNEL (4,4´-methylenediphenyl diisocyanate): 28,7 mg/cm2
Exposure: Dermal
Duration of Exposure: Short term
Remarks: Local

DNEL (4,4´-methylenediphenyl diisocyanate): 0,1 mg/m3 air
Exposure: Inhalation
Duration of Exposure: Short term
Remarks: Systemic and local

DNEL (4,4´-methylenediphenyl diisocyanate): 0,05 mg/m3 air
Exposure: Inhalation
Duration of Exposure: Long term
Remarks: Systemic and local

PNEC (o-(p-isocyanatobenzyl)phenyl isocyanate): > 1 mg/l
Exposure: Water
Remarks: Freshwater

PNEC (4,4´-methylenediphenyl diisocyanate): > 1 mg/l
Exposure: Water
Remarks: Fresh water

PNEC (4,4´-methylenediphenyl diisocyanate): >0,1 mg/l
Exposure: Water
Remarks: See water

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

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

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Exhaust air that contains the substances shall not be recirculated.

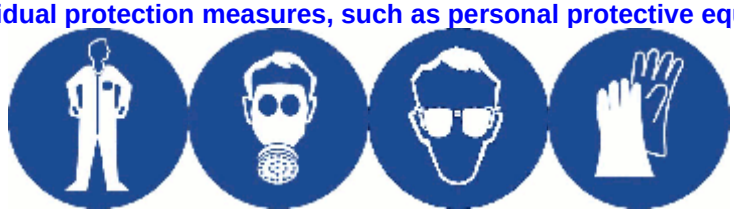
Hygiene measures

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: Combination filter A2P2. Class 2. Brown/White

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
Recommended: Nitrile rubber. Breakthrough time: > 480 minutes (Class 6)
Material thickness: >=0,35 mm.

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	Pale yellow
Odour	Aromatic
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm³)	1,13
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)	193
Ignition (°C)	500
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 (film drying time) ca. 137 minutes at standard conditions (23°C, 50%RF).

10.3. Possibility of hazardous reactions
Nothing special

10.4. Conditions to avoid
Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

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

Substance: 4,4´-methylenediphenyl diisocyanate
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: >9400 mg/kg

Substance: 4,4´-methylenediphenyl diisocyanate
Species: Rat
Test: LD50
Route of exposure: Inhalation
Result: 0,368 mg/l (dust)

Substance: 4,4´-methylenediphenyl diisocyanate
Species: Rat
Test: LD50
Route of exposure: Oral
Result: >2000 mg/kg

Substance: Prepolymer based on aromatic polyisocyanate
Species: Rabbit
Test: LD50
Route of exposure: Dermal
Result: >9.400 mg/kg

Substance: Prepolymer based on aromatic polyisocyanate
Species: Rat
Test: LD50
Route of exposure: Oral
Result: >2.000 mg/kg

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.

Data on substance: 4,4´-methylenediphenyl diisocyanate
Organism: Guinea pig
Result: Positive

Data on substance: Prepolymer based on aromatic polyisocyanate
Organism: Guinea pig
Result: Positive

Data on substance: 4,4´-methylenediphenyl diisocyanate
Test: Mouse local lymphnode assay
Organism: Mouse
Result: Positive

Data on substance: Prepolymer based on aromatic polyisocyanate
Test: Mouse local lymphnode assay
Organism: Mouse
Result: OECD TG 429: Positive

Germ cell mutagenicity

No data available.

Carcinogenicity

Suspected of causing cancer.

Data on substance: 4,4´-methylenediphenyl diisocyanate
Test: OECD TG 453
Organism: Rat
Result: Tumors in highest dosis group

Reproductive toxicity
Data on substance: 4,4´-methylenediphenyl diisocyanate
Test: OECD TG 414
Organism: Rat
Result: No teratogene effects observed

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
Substance: The mixture
Species: Fish
Test: LC50
Duration: 96 h
Result: >100 mg/l (OECD TG 203)

Substance: The mixture
Species: Daphnia
Test: EC50
Duration: 48 h
Result: 9,9 mg/l (OECD TG 202)

Substance: The mixture
Species: Algae
Test: EC50
Duration: 72 h
Result: >100 mg/l (OECD TG 201)

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
4,4´-methylenediphenyl diisocy...	No	No data available	No data available
The mixture	No	Closed Bottle Test	0% (28 d)

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
4,4´-methylenediphenyl diisocy...	No	No data available	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
This product contains substances, which due to poor biodegradability, may cause adverse long-term effects to the aquatic environment,

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

-

Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4

This product is within scope of the regulations of transport of dangerous goods.

ADR/RID

14.1. UN number	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prepolymer based on Aromatic Polyisocyanate)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
Notes	-
Tunnel restriction code	E

IMDG

UN-no.	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prepolymer based on Aromatic Polyisocyanate)
Class	9
PG*	III
EmS	F-A, S-F
MP**	Yes
Hazardous constituent	-

IATA/ICAO

UN-no.	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Prepolymer based on Aromatic Polyisocyanate)
Class	9
PG*	III

14.5. Environmental hazards

This product contains substances, which due to poor biodegradability, may cause adverse long-term effects to the aquatic environment,

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

Tactile warning.

Seveso

Seveso III Part 1: E2

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.
Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC.
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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).
EC regulation 1907/2006 (REACH).
The Control of Major Accident Hazards (COMAH) Regulations 2015.

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)
The classification of the mixture in regard of environmental 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

Robert Pedersen

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

2018-08-21(5.0)

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

2018-08-21