SAFETY DATA SHEET ACCORDING TO REGULATION (EC) 1907/2006

Product name: Stonder Direct Glazing Polyurethane Adhesive Fast

Creation date: 18.04.2023, Revision: 16.05.2023, version: 2.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

Stonder Direct Glazing Polyurethane Adhesive Fast

Product code

[80129 UFI:0FW4-J7C1-R002-200G]

https://my.chemius.net/p/xCWxNh/en/pd/en

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

Relevant identified uses

Adhesive.

Uses advised against

no further relevant information available

1.3 Details of the supplier of the safety data sheet

Supplier

Rags LTD
Džūkstes str.1
LV-1004 Riga, Latvia
+37167808780
rags@rags.lv

1.4 Emergency Telephone Number

Emergency

112

Supplier

+37167808780

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

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

2.2 Label elements

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

Signal word: DANGER

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
EUH204 Contains isocyanates. May produce an allergic reaction.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P284 Wear respiratory protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501 Dispose of contents/container in accordance with national regulation.

Contains:
diphenylmethane-4,4'-diisocyanate

2.3 Other hazards

PBT/vPvB
No information.

Endocrine disrupting properties
No information.

Additional information
No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
diphenylmethane-4,4'-diisocyanate	101-68-8 202-966-0 615-005-00-9	>0.1-<1	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	Skin Irrit. 2; H315; C ≥ 5% Eye Irrit. 2; H319; C ≥ 5% Resp. Sens. 1; H334; C ≥ 0.1% STOT SE 3; H335; C ≥ 5%	C

Notes for substances

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes
Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. If unconscious but breathing normally, place in recovery position and seek medical advice.

Following inhalation
Remove patient to fresh air - move out of dangerous area. Obtain professional medical help!

Following skin contact
Take off all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap

Following eye contact
Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion
Do not induce vomiting! Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Consult a physician. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation
No information.

Following skin contact
No information.

Following eye contact
No information.

Following ingestion
No information.

4.3 Indication of any immediate medical attention and special treatment needed

No information.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media
Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
No information.

5.3 Advice for firefighters

Protective actions
No information.

Special protective equipment for fire-fighters
Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment
No information.

Precautionary measures
Ensure adequate ventilation.

Emergency procedures
No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders
Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment
Stem the spill if this does not pose risks.

For cleaning up
Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Prevent release into the sewer, water, basements or confined areas. Ventilate the premises. Clean contaminated area with plenty of water.

OTHER INFORMATION
No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures
Measures to prevent fire
Ensure adequate ventilation.

Measures to prevent aerosol and dust generation
Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment
Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures
No information.

Advice on general occupational hygiene
Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8. Avoid exposure - obtain special instructions before using.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Keep in a cool, dry and well ventilated place. Keep away from food, drink and animal feeding stuffs.

Packaging materials
Store only in original container.

Requirements for storage rooms and vessels
Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage class
No information.

Further information on storage conditions
maximum storage temperature : < 35°C minimum storage temperature : > 0°C storage temperature: : 0 - 35 °C

7.3 Specific end use(s)

Recommendations
No information.

Industrial sector specific solutions
No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m³	ml/m³	Short-term value mg/m³	Short-term value ml/m³	Remark	Biological Tolerance Values
Isocyanates, all (as –NCO) Except methyl isocyanate	0.02	/	0.07	/	Sen	1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure

Information on monitoring procedures
BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product
No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	value
diphenylmethane-4,4'-diisocyanate	Worker	dermal	short term systemic effects	24 h	50 mg/kg
diphenylmethane-4,4'-diisocyanate	Worker	inhalation	short term systemic effects	/	0.1 mg/m³
diphenylmethane-4,4'-diisocyanate	Worker	dermal	short term systemic effects	/	28.7 mg/cm²
diphenylmethane-4,4'-diisocyanate	Worker	inhalation	long term systemic effects	/	0.05 mg/m³
diphenylmethane-4,4'-diisocyanate	Consumer	dermal	short term systemic effects	mg/kg per day	25 mg/kg
diphenylmethane-4,4'-diisocyanate	Consumer	inhalation	short term systemic effects	/	0.05 mg/m³
diphenylmethane-4,4'-diisocyanate	Consumer	oral	short term systemic effects	mg/kg per day	20 mg/kg
diphenylmethane-4,4'-diisocyanate	Consumer	dermal	short term local effects	/	17.2 mg/cm²
diphenylmethane-4,4'-diisocyanate	Consumer	inhalation	short term local effects	/	0.05 mg/m³
diphenylmethane-4,4'-diisocyanate	Consumer	inhalation	long term systemic effects	systemic	0.025 mg/m³

diphenylmethane-4,4'-diisocyanate	Consumer	inhalation	long term local effects	/	0.025 mg/m³

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	value
diphenylmethane-4,4'-diisocyanate	fresh water	/	1 mg/L
diphenylmethane-4,4'-diisocyanate	marine water	/	0.1 mg/L
diphenylmethane-4,4'-diisocyanate	soil	/	1 mg/kg
diphenylmethane-4,4'-diisocyanate	water, intermittent release	/	10 mg/L
diphenylmethane-4,4'-diisocyanate	water treatment plant	/	1 mg/L

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

Skin protection

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022). At high risk of skin exposure chemical suits (BS EN ISO 6530:2005) and boots may be required (BS EN ISO 20345:2022).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state
liquid - fluid

Colour
black

Odour
characteristic

Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	No information.
Boiling point or initial boiling point and boiling range	270 °C
Flammability	> 300 °C
Lower and upper explosion limit	0.4 vol % 2.9 vol %
Flash point	164 °C
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	No information.
Solubility	Water: insoluble
Partition coefficient	No information.
Vapour pressure	No information.
Density and/or relative density	Density: 1.21 — 1.23 g/cm^3
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Explosive properties	No information.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No information.

10.4 Conditions to avoid

No information.

10.5 Incompatible materials

No information.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
diphenylmethane-4,4'-diisocyanate	oral	LD_{50}	rat	/	> 2000 mg/kg bw	84/449/EEC, B.1	/
diphenylmethane-4,4'-diisocyanate	dermal	LD_{50}	rabbit	/	> 9400 mg/kg	OECD 402	/

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

For components

Name	Species	Time	result	Method	Remark
diphenylmethane-4,4'-diisocyanate	rabbit	/	Irritating.	OECD 404 (Acute Dermal Irritation/Corrosion)	/

Additional information

The product is not classified as irritating to skin and eyes.

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
diphenylmethane-4,4'-diisocyanate	/	rabbit	/	Non-irritant.	OECD 405, GLP	/

(d) Respiratory or skin sensitisation

For components

Name	Exposure route	Species	Time	result	Method	Remark
diphenylmethane-4,4'-diisocyanate	dermal	guinea pig	/	Sensitizing.	/	/
diphenylmethane-4,4'-diisocyanate	dermal	mouse	/	Sensitizing.	/	/

Additional information

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

(e) (Germ cell) mutagenicity

For components

Name	Type	Species	Time	result	Method	Remark
diphenylmethane-4,4'-diisocyanate	in-vitro mutagenicity	/	/	Negative.	OECD 471	/
diphenylmethane-4,4'-diisocyanate	in-vivo mutagenicity	/	/	Negative.	OECD 474	/

(f) Carcinogenicity

For components

Name	Exposure route	Type	Species	Time	value	result	Method	Remark
diphenylmethane-4,4'-diisocyanate	inhalation	/	rat	/	/	Lung tumors	OECD 453	/

(g) Reproductive toxicity
No information.

Summary of evaluation of the CMR properties
Suspected of causing cancer.

(h) STOT-single exposure
No information.

Additional information
STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure
No information.

Additional information
STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard
No information.

Additional information
Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics
No information.

Interactive effects
No information.

11.2 Information on other hazards

Endocrine disrupting properties

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity
No information.

Chronic (long-term) toxicity
No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination
No information.

Biodegradation
No information.

12.3 Bioaccumulative potential

Partition coefficient
No information.

Bioconcentration factor (BCF)
No information.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments
No information.

Surface tension
No information.

Adsorption/Desorption
No information.

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product
Product is not classified as dangerous for environment. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical
Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW
No information.

Packaging
Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents.

Waste codes / waste designations according to LoW
No information.

Waste treatment-relevant information
No information.

Sewage disposal-relevant information
No information.

Other disposal recommendations
No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number or ID number			
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.
14.2 UN proper shipping name			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.3 Transport hazard class(es)			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities Not given/not applicable	Limited quantities Not given/not applicable		Limited quantities Not given/not applicable
14.7 Maritime transport in bulk according to IMO instruments			
	Not given/not applicable		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

Special instructions

Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

No information.

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure

SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

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.