PLUSERIES Prepolymer

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 6/28/2021 Revision date: 6/28/2021 Version: 1.0

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

1.1. Product identifier

Product form : Mixtures

Product name : PLUSERIES 25 Second Prepolymer
PLUSERIES 60 Second Prepolymer
PLUSERIES Composite Prepolymer

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

1.2.1. Relevant identified uses

Main use category : Industrial use

Use of the substance/mixture : Adhesive.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
Fabtech Systems LLC
PO Box 2248
98213 Everett, WA - USA
T 1-800-322-8324
info@fabtechsystems.com

Distributor
Orthopartners BV
Patrijslaan 8
1343 AC Almere
The Netherlands
+31 (0)36 5521 2800
info@orthopartners.eu

1.4. Emergency telephone number

Emergency number : INFOTRAC 24hr 800-535-5053
International 1-352-323-3500

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Inhalation:dust,mist)	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 2	H351
STOT SE 3	H335
STOT RE 2	H373

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS07 GHS08

Signal word (CLP) : Danger

Hazardous ingredients : 4,4'-Methylenediphenyl diisocyanate; Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer

Hazard statements (CLP) : 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
Precautionary statements (CLP)	:	P201 - Obtain special instructions before use P260 - Do not breathe dust/fume/gas/mist/vapours/spray P280 - Wear protective gloves/protective clothing/eye protection/face protection P285 - Wear respiratory protection P304+P341+P342+P311 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms:. Call a POISON CENTER or doctor/physician P308+P313 - IF exposed or concerned: Get medical advice/attention
Unknown acute toxicity (CLP) - SDS	:	50.22% of the mixture consists of ingredient(s) of unknown acute oral toxicity 85.73% of the mixture consists of ingredient(s) of unknown acute dermal toxicity 51.71% of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity
Unknown hazards to the aquatic environment (CLP)	:	Contains 75.51 % of components with unknown hazards to the aquatic environment

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-Methylenediphenyl diisocyanate (Note C)(Note 2)	(CAS-No.) 101-68-8 (EC-No.) 202-966-0 (EC Index-No.) 615-005-00-9	35.51	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer	(CAS-No.) 25686-28-6 (EC-No.) 500-040-3	10 - 15	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
Propylene carbonate	(CAS-No.) 108-32-7 (EC-No.) 203-572-1 (EC Index-No.) 607-194-00-1	1.49	Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
4,4'-Methylenediphenyl diisocyanate	(CAS-No.) 101-68-8 (EC-No.) 202-966-0 (EC Index-No.) 615-005-00-9	(C >= 0.1) Resp. Sens. 1, H334 (C >= 5) STOT SE 3, H335 (C >= 5) Skin Irrit. 2, H315 (C >= 5) Eye Irrit. 2, H319

Note 2 : The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Note 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.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
First-aid measures after eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
First-aid measures after ingestion	:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation : Harmful if inhaled. May cause irritation to the respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause sensitization by skin contact.

Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Hydrogen cyanide. Isocyanates. Nitrogen oxides. Toxic fumes. Aldehydes. Ketones. Halogenated compounds. Bromine. Hydrocarbons.

5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Wear chemically resistant protective gloves.

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Viscous
Colour	:	Beige
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	< 1
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	> 392 °F
Flash point	:	> 212 °F
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not flammable
Vapour pressure	:	< 0.01333 hPa 77 F
Relative vapour density at 20 °C	:	> 1 (air=1)
Relative density	:	No data available
Density	:	1.288 g/cm³ 68 F
Solubility	:	Practically insoluble.
Partition coefficient n-octanol/water	:	No data available
Viscosity, kinematic	:	15527.95031056 mm²/s
Viscosity, dynamic	:	20000 mPa.s
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials. Freezing. Moisture.

10.5. Incompatible materials

Acids. Alcohols. Aluminum. Amines. Ammonia. Bases. Copper and its alloys. Fluorine. Iron. Isocyanates. Oxidizers. Phosphorus. Strong alkalis. Strong reducing agents. Water. zinc. humid air.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Hydrocarbons. Hydrogen cyanide. Isocyanates. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Harmful if inhaled.

ATE CLP (dust,mist)	1.72 mg/l/4h

4,4'-Methylenediphenyl diisocyanate (101-68-8)	
LD50 oral rat	31600 mg/kg
LC50 inhalation rat	369 mg/m³ (Exposure time: 4 h)

Propylene carbonate (108-32-7)	
LD50 oral rat	29000 mg/kg
LD50 dermal rabbit	> 3000 mg/kg

Unknown acute toxicity (CLP) - SDS : 50.22% of the mixture consists of ingredient(s) of unknown acute oral toxicity
85.73% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
51.71% of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

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

Germ cell mutagenicity : Not classified.

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified.

STOT-single exposure : May cause respiratory irritation.

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

Aspiration hazard : Not classified.

PLUSERIES-25 Second Prepolymer	
Viscosity, kinematic	15527.95031056 mm²/s

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Propylene carbonate (108-32-7)	
LC50 fish 1	> 1000 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [semi-static])
EC50 Daphnia 1	> 500 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h algae (1)	> 500 mg/l (Species: Desmodesmus subspicatus)

Unknown hazards to the aquatic environment (CLP) : Contains 75.51 % of components with unknown hazards to the aquatic environment

12.2. Persistence and degradability

PLUSERIES Prepolymer	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

PLUSERIES Prepolymer	
Bioaccumulative potential	Not established.

Propylene carbonate (108-32-7)	
Partition coefficient n-octanol/water	0.48 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with ADR

14.1. UN number

UN-No. (ADR) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Indication of changes:
None.

Data sources : 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.

Other information : None.

Prepared by : Nexreg Compliance Inc.
www.Nexreg.com

Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
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

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Resp. Sens. 1	H334	Calculation method
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

SDS EU (REACH Annex II)_NEXREG_NEW

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