

PLUSERIES 25 Second Prepolymer

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 09/09/2015

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Version: 1.0

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

1.1. Product identifier

Product name : PLUSERIES 25 Second Prepolymer
Product code : Not available.

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

Use of the substance/mixture : Adhesive.

1.3. Details of the supplier of the safety data sheet

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

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 (GHS-US)

Acute Toxicity 4 (Inhalation)
Skin Irritation 2
Eye Irritation 2A
Respiratory Sensitization 1
Skin Sensitization 1
Specific Target Organ Toxicity After Single Exposure 3
Specific Target Organ Toxicity After Repeated Exposure 2

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US) :

Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/ eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Wash hands thoroughly after handling. Get medical advice/attention if you feel unwell. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS US)

25 percent of the mixture consists of ingredient(s) of unknown acute toxicity.

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

3.2. Mixture

| Name | Product identifier | % |
|-------------------------------------|---------------------|---------|
| 4,4'-Methylenediphenyl diisocyanate | (CAS No) 101-68-8 | 15 - 40 |
| Polymer | Trade Secret | 10 - 15 |
| SCAVENGER | Trade Secret | 10 - 15 |
| Talc | (CAS No) 14807-96-6 | 10 - 15 |
| Urethane Prepolymer | Trade Secret | 5 - 10 |
| Propylene carbonate | (CAS No) 108-32-7 | 1 - 5 |
| Quartz | (CAS No) 14808-60-7 | <0.1 |

* The specific chemical identity and exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

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 : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. 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/injuries after inhalation : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/injuries 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/injuries 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/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting 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.

6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

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Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes and skin. Avoid breathing dust/fume/gas/mist/vapors/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

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) | | |
|--|---|-----------------------|
| ACGIH | ACGIH TWA (ppm) | 0.005 ppm |
| OSHA | OSHA PEL (Ceiling) (mg/m ³) | 0.2 mg/m ³ |
| OSHA | OSHA PEL (Ceiling) (ppm) | 0.02 ppm |

| Polymer (Trade Secret) | |
|------------------------|-----------------|
| ACGIH | Not applicable. |
| OSHA | Not applicable. |

| SCAVENGER (Trade Secret) | | |
|--------------------------|--------------------------------|---|
| ACGIH | ACGIH TWA (mg/m ³) | 1 mg/m ³ (respirable fraction) |
| OSHA | OSHA TWA (mg/m ³) | 0.1 mg/m ³ |

| Talc (14807-96-6) | | |
|-------------------|--------------------------------|---|
| ACGIH | ACGIH TWA (mg/m ³) | 2 mg/m ³ (respirable fraction) |
| OSHA | OSHA TWA (mg/m ³) | 2 mg/m ³ (resp) |

| Urethane Prepolymer (Trade Secret) | |
|------------------------------------|-----------------|
| ACGIH | Not applicable. |
| OSHA | Not applicable. |

| Propylene carbonate (108-32-7) | |
|--------------------------------|-----------------|
| ACGIH | Not applicable. |
| OSHA | Not applicable. |

| Quartz (14808-60-7) | | |
|---------------------|--------------------------------|--|
| ACGIH | ACGIH TWA (mg/m ³) | 0.025 mg/m ³ (respirable fraction) |
| OSHA | OSHA TWA (mg/m ³) | (10 mg/m ³)/(%SiO ₂ +2) (resp) (30 mg/m ³)/(%SiO ₂ +2) (total) (250)/(%SiO ₂ +5) mppcf (resp) |

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection : Wear chemically resistant protective gloves.

Eye protection : Wear eye protection.

Skin and body protection : Wear suitable protective clothing.

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| | |
|---------------------------------|--|
| Respiratory protection | : In case of insufficient ventilation, wear suitable respiratory equipment. 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 | : Maintain levels below Community environmental protection thresholds. |
| Other information | : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---------------------------------|
| Physical state | : Liquid |
| Appearance | : Viscous |
| Color | : Beige |
| Odor | : No data available |
| Odor threshold | : No data available |
| pH | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : > 392 °F |
| Flash point | : > 212 °F |
| Relative evaporation rate (butyl acetate=1) | : < 1 |
| Flammability (solid, gas) | : Not flammable |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |
| Vapor pressure | : < 0.01333 hPa 77 °F |
| Relative density | : No data available |
| Relative vapor density at 20 °C | : > 1 (air=1) |
| Specific gravity / density | : 1.288 g/cm ³ 68 °F |
| Solubility | : Practically insoluble |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 20000 mPa.s |

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal 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.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

| PLUSERIES 25 Second Prepolymer | |
|--------------------------------|---|
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | > 10 but < 20 mg/l/4h (Calculated using ATE values) |

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) | |
|--|-------------------------------|
| LD50 oral rat | 9200 mg/kg |
| LD50 dermal rabbit | >7900 mg/kg |
| LC50 inhalation rat | 0.369 mg/l/4h; > 2.24 mg/l/1h |

| Polymer (Trade Secret) | |
|------------------------|--------------|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 9400 mg/kg |

| Propylene carbonate (108-32-7) | |
|--------------------------------|-----------|
| LD50 oral rat | 29.1 g/kg |
| LD50 dermal rabbit | > 24 g/kg |

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : Based on available data, the classification criteria are not met.

| 4,4'-Methylenediphenyl diisocyanate (101-68-8) | |
|--|----------------------|
| IARC group | 3 - Not classifiable |

| Talc (14807-96-6) | |
|--|---|
| IARC group | 3 - Not classifiable |
| National Toxicology Program (NTP) Status | 1 - Evidence of Carcinogenicity, 5 - Twelfth Report - Items under consideration |

| Quartz (14808-60-7) | |
|--|-----------------------------|
| IARC group | 1 - Carcinogenic to humans |
| National Toxicology Program (NTP) Status | 2 - Known Human Carcinogens |

Reproductive toxicity : Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure) : May cause respiratory irritation.
Specific target organ toxicity (repeated exposure) : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/injuries 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/injuries 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/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

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

12.2. Persistence and degradability

| PLUSERIES 25 Second Prepolymer | |
|--------------------------------|------------------|
| Persistence and degradability | Not established. |

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12.3. Bioaccumulative potential

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| | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |
|---------------------------|------------------|

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

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

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

4,4'-Methylenediphenyl diisocyanate (101-68-8)

Subject to reporting requirements of United States SARA Section 313

| | |
|---------------------------------------|-------|
| SARA Section 313 - Emission Reporting | 1.0 % |
|---------------------------------------|-------|

15.2. US State regulations

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| | |
|----------------------------|--|
| State or local regulations | This product contains a chemical known to the State of California to cause cancer. |
|----------------------------|--|

SECTION 16: Other information

Date of issue : 09/09/2015

Revision date : 09/09/2015

Other information : None.

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