

Safety Data Sheet
Prepared in Accordance with HCS 29
C.F.R. 1910.1200

STONHARD**1. Identification of the Substance/Mixture and the Company/Undertaking**

- 1.1 Product Identifier** 73XX/ISO-BAGS **Revision Date:** 08/28/2020
Product Name: STONSEAL PF7 ISOCYANATE **Supersedes Date:** 07/21/2020
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Hardener for 2 components coatings - Industrial use.
- 1.3 Details of the supplier of the safety data sheet**
- Manufacturer:** Stonhard, Division of StonCor Group, Inc.
1000 East Park Avenue
Maple Shade, NJ 08052
+1 856 7797500 (US)
- Datasheet Produced by:** ehs@stonhard.com
- 1.4 Emergency telephone number:** CHEMTREC 1-800-424-9300 (Inside US)
CHEMTREC +1 703 5273887 (Outside US)

2. Hazard Identification

- 2.1 Classification of the substance or mixture**
- Acute Toxicity, Inhalation, category 3
STOT, single exposure, category 3, RTI
Skin Sensitizer, category 1

2.2 Label elements

Symbol(s) of Product



Signal Word

Danger

Named Chemicals on Label

Hexamethylene diisocyanate, hexamethylene diisocyanate, oligomers

HAZARD STATEMENTS

| | | |
|--|------|--------------------------------------|
| Skin Sensitizer, category 1 | H317 | May cause an allergic skin reaction. |
| Acute Toxicity, Inhalation, category 3 | H331 | Toxic if inhaled. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation. |

PRECAUTION PHRASES

| | |
|----------|--|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

No information

3. Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>%</u> |
|----------------|--|------------|
| 28182-81-2 | hexamethylene diisocyanate, oligomers | 75-100 |
| 9046-01-9 | Polyoxyethylene tridecyl ether phosphate | 2.5 - <10 |
| 7087-68-5 | ethyl-diisopropylamine | 1.0 - <2.5 |
| 12788-93-1 | Phosphoric acid, butyl ester | 1.0 - <2.5 |
| 822-06-0 | Hexamethylene diisocyanate | 0.1 - <1.0 |

| <u>CAS-No.</u> | <u>GHS Symbols</u> | <u>GHS Hazard Statements</u> | <u>M-Factors</u> |
|----------------|--------------------|----------------------------------|------------------|
| 28182-81-2 | GHS06 | H317-331-335 | 0 |
| 9046-01-9 | | | 0 |
| 7087-68-5 | GHS07 | H302 | 0 |
| 12788-93-1 | | | 0 |
| 822-06-0 | GHS06-GHS08 | H302-311-315-317-319-330-334-335 | 0 |

Additional Information: The text for GHS Hazard Statements shown above (if any) is given in Section 16.

4. First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and respiratory system.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

5. Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

Heating or fire can release toxic gas.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. ABC powder. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Water reactive.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. Keep the container open.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

7. Handling and Storage

7.1 Precautions for safe handling

INSTRUCTIONS FOR SAFE HANDLING: Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapours or spray mist. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used.

PROTECTION AND HYGIENE MEASURES: Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Keep from any possible contact with water.

STORAGE CONDITIONS: Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

7.3 Specific end use(s)

The mixing and application to be in accordance with the technical data sheets.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (US)

| <u>Name</u> | <u>CAS-No.</u> | <u>ACGIH TWA</u> | <u>ACGIH STEL</u> | <u>ACGIH Ceiling</u> |
|--|----------------|------------------|-------------------|----------------------|
| hexamethylene diisocyanate, oligomers | 28182-81-2 | | | |
| Polyoxyethylene tridecyl ether phosphate | 9046-01-9 | | | |
| ethyldiisopropylamine | 7087-68-5 | | | |
| Phosphoric acid, butyl ester | 12788-93-1 | | | |
| Hexamethylene diisocyanate | 822-06-0 | 0.005 PPM | | |

| <u>Name</u> | <u>CAS-No.</u> | <u>OSHA PEL</u> | <u>OSHA STEL</u> |
|--|----------------|-----------------|------------------|
| hexamethylene diisocyanate, oligomers | 28182-81-2 | | |
| Polyoxyethylene tridecyl ether phosphate | 9046-01-9 | | |
| ethyldiisopropylamine | 7087-68-5 | | |
| Phosphoric acid, butyl ester | 12788-93-1 | | |
| Hexamethylene diisocyanate | 822-06-0 | | |

FURTHER INFORMATION: Refer to the regulatory exposure limits for the workforce enforced in each country.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. No personal respiratory protective equipment normally required.

EYE PROTECTION: Safety glasses.

HAND PROTECTION: Impervious gloves. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|-------------------|
| Appearance: | Clear/Pale yellow |
| Physical State | LIQUID |
| Odor | Musty |
| Odor threshold | Not determined |
| pH | N/A |

| | |
|---|--------------------------|
| Melting point / freezing point (°C) | Not determined |
| Boiling point/range (°C) | N.D. - N.D. |
| Flash Point, (°F / °C) | >200F / >93C |
| Evaporation rate | Not determined |
| Flammability (solid, gas) | Not determined |
| Upper/lower flammability or explosive limits | N/A - N/A |
| Vapour Pressure | 7.5X10-5 mmHg @ 20C |
| Vapour density | Heavier than air |
| Relative density | Not determined |
| Solubility in / Miscibility with water | Insoluble, reacts slowly |
| Partition coefficient: n-octanol/water | Not determined |
| Auto-ignition temperature (°C) | Not determined |
| Decomposition temperature (°C) | Not determined |
| Viscosity | Low |
| Explosive properties | Not applicable |
| Oxidising properties | Not applicable |

9.2 Other information

| | |
|---|-------|
| VOC Content g/l: | 47.00 |
| Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E. | |
| Specific Gravity (g/cm³) | 1.153 |

10. Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

Container can be pressurized by carbon dioxide due to reaction with humid air and/or water. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Keep from any possible contact with water.

10.5 Incompatible materials

Reacts violently in contact with acids, amines, driers, polymerisation accelerators and easily oxidized materials. Contact with water or moist air liberates irritating gas.

10.6 Hazardous decomposition products

Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No information

Inhalation LC50: No information

Irritation: No information available.

Corrosivity: Not corrosive.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> | <u>Gas LC50</u> | <u>Dust/Mist LC50</u> |
|----------------|---------------------------------------|-----------------------|---------------------|----------------------|-----------------|-----------------------|
| 28182-81-2 | hexamethylene diisocyanate, oligomers | 5000 mg/kg, oral, rat | >2000 mg/kg, rabbit | 4.625 mg/l 1 hr rat | | |
| 7087-68-5 | ethyl-diisopropylamine | 317 mg/kg, oral, rat | | | 0.000 | 0.000 |
| 12788-93-1 | Phosphoric acid, butyl ester | >2000 mg/kg | | | 0.000 | 0.000 |
| 822-06-0 | Hexamethylene diisocyanate | 746 mg/kg, rat | 959 mg/kg, rat | 0.124 mg/l, 4 h, rat | 0.000 | 0.000 |

Additional Information:

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

12. Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

| | |
|--|----------------|
| 12.2 Persistence and degradability: | No information |
| 12.3 Bioaccumulative potential: | No information |
| 12.4 Mobility in soil: | No information |
| 12.5 Results of PBT and vPvB assessment: | No information |
| 12.6 Other adverse effects: | No information |

| <u>CAS-No.</u> | <u>Chemical Name</u> | <u>EC50 48hr</u> | <u>IC50 72hr</u> | <u>LC50 96hr</u> |
|----------------|--|------------------|------------------|------------------|
| 28182-81-2 | hexamethylene diisocyanate, oligomers | 127 mg/l | 199 mg/l | >100 mg/l |
| 9046-01-9 | Polyoxyethylene tridecyl ether phosphate | No information | No information | No information |
| 7087-68-5 | ethyldiisopropylamine | 74.3 mg/l | No information | No information |
| 12788-93-1 | Phosphoric acid, butyl ester | >100 mg/l | No information | No information |
| 822-06-0 | Hexamethylene diisocyanate | No information | No information | 82.8 mg/l |

13. Disposal Considerations

13.1 **WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

| | |
|---|-----------------------------|
| 14.1 UN number | N/A |
| 14.2 UN proper shipping name | Not regulated for transport |
| Technical name | N/A |
| 14.3 Transport hazard class(es) | N/A |
| Subsidiary shipping hazard | Not applicable |
| 14.4 Packing group | Not applicable |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | Not applicable |
| EmS-No.: | N/A |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code | Not applicable |

15. Regulatory Information

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

U.S. Federal Regulations: As follows -

CERCLA - Sara Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Acute Toxicity (any route of exposure), Respiratory or Skin Sensitization, Specific target organ toxicity (single or repeated exposure)

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the U.S. Superfund Amendment and Reauthorization Act (SARA) of 1986 and 40 CFR part 372:

| <u>Chemical Name</u> | <u>CAS-No.</u> | <u>%</u> |
|----------------------------|----------------|----------|
| | CAS No. | |
| Hexamethylene diisocyanate | CAS No. | 0.1 |

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. Clean Air Act:

| | |
|------------------------------|--|
| EPA Coating Category: | Industrial Maintenance Coating |
| EPA VOC Content Limit (g/l): | 450 |
| Product VOC Content (g/l) | 47 |
| Thinning Recommendations: | The coating is to be applied without thinning. |
| Application Recommendations: | For professional use only. |

* As per the federal EPA definition for coating categories in 40 CFR 59.401.

** Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.

U.S. State Regulations: As follows -**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

No NJ Right-To-Know components exist in this product.

Pennsylvania Right-To-Know

The following non-hazardous ingredients are present in the product at greater than 3%.

No PA Right-To-Know components exist in this product.

California Proposition 65:

No Proposition 65 Chemicals exist in this product.

International Regulations: As follows -*** Canadian DSL:**

All chemical ingredients included on inventory or exempt.

15.2 Chemical Safety Assessment:

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

16. Other Information

Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H331 | Toxic if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |

Reasons for revision

No Information

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

| | |
|--------|--|
| CLP | Classification, Labeling & Packaging Regulation |
| EC | European Commission |
| EU | European Union |
| US | United States |
| CAS | Chemical Abstract Service |
| EINECS | European Inventory of Existing Chemical Substances |
| REACH | Registration, Evaluation, Authorization of Chemicals Regulation |
| GHS | Globally Harmonized System of Classification and Labeling of Chemicals |
| LTEL | Long term exposure limit |
| STEL | Short term exposure limit |
| OEL | Occupational exposure limit |
| ppm | Parts per million |
| mg/m3 | Milligrams per cubic meter |
| TLV | Threshold Limit Value |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| OSHA | Occupational Safety & Health Administration |
| PEL | Permissible Exposure Limits |
| VOC | Volatile organic compounds |
| g/l | Grams per liter |
| mg/kg | Milligrams per kilogram |
| N/A | Not applicable |
| LD50 | Lethal dose at 50% |
| LC50 | Lethal concentration at 50% |
| EC50 | Half maximal effective concentration |
| IC50 | Half maximal inhibitory concentration |
| PBT | Persistent bioaccumulative toxic chemical |
| vPvB | Very persistent and very bioaccumulative |
| EEC | European Economic Community |
| ADR | International Transport of Dangerous Goods by Road |
| RID | International Transport of Dangerous Goods by Rail |
| UN | United Nations |
| IMDG | International Maritime Dangerous Goods Code |

| | |
|--------|---|
| IATA | International Air Transport Association |
| MARPOL | International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 |
| IBC | International Bulk Container |
| RTI | Respiratory Tract Irritation |
| NE | Narcotic Effects |

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.