

Material Safety Data Sheet

Trade name: Steodur PUR Hardener

Product no.: 7D202

Version: BUS111009

Date of printing: 12.21.2009

1.) Identification of the substance/preparation and of the Company/undertaking

Identification of the substance or preparation

Trade name

Steodur PUR Hardener

Company/undertaking identification

Address

Bergolin GmbH & Co. KG

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2.) Hazards identification

Immediate hazards

General

WARNING

Toxic if inhaled.

May cause allergic respiratory reaction.

May cause allergic skin reaction.

May cause skin and eye irritation.

May cause respiratory tract irritation.

Potential Health Effects

Eye

May cause eye irritation

Skin

May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

May cause skin irritation.

Inhalation

Possible irritation of the respiratory system can occur causing a variety of symptoms such as: inflammation and ulceration of the respiratory tract; Individuals with lung or breathing problems or prior reaction to isocyanates must not be exposed to vapor or spray mist. May cause: allergic respiratory reaction.

Ingestion

May cause vomiting.

Carcinogenicity

None of the components present in this material at concentrations equal or greater than 0.1% is listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

3.) Composition/information on ingredients

Chemical characterization

Mixture (preparation)

Hazardous ingredients

HEXAMETHYLENE-DIISOCYANATE

CAS no. 822-06-0

HEXAMETHYLENE-1-6-DI-ISOCYANATE, HOMOPOLYMER

CAS no. 28182-81-2

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4.) First aid measures

General information

In all cases of doubt, or when sickness symptoms persist, seek medical attention. Never give anything by mouth to an Unconscious person. Remove soiled or soaked clothing immediately.

After inhalation

Remove to fresh air, keep patient warm and at rest. Irregular breathing/no breathing: artificial respiration. If unconscious place in recovery position and seek medical advice.

After skin contact

Remove contaminated clothing immediately and dispose of safely. Wash skin thoroughly with soap and water or use recognized skin cleaner. Do NOT use solvents or thinners!

After eye contact

Remove contact lenses, irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart and seek medical advice.

After ingestion

Do not induce vomiting. Keep at rest. Call a doctor.

5.) Firefighting measures

Suitable extinguishing media

Alcohol resistant foam, CO₂, powders, water spray

Extinguishing media that must not be used for safety reasons

Full water jet

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases.

Fire will produce dense, black smoke. Exposure to decomposition products may cause a health hazard.

Special protective equipment for firefighting

As in any fire, wear self-contained breathing apparatus pressure - demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Other information

Cool endangered containers with water in case of fire. Do not allow run-off from firefighting to enter drains or water courses.

6.) Accidental release measures

Personal precautions

Exclude sources of ignition and ventilate the area. Do not inhale vapors. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Do not allow to enter drains. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods for cleaning up/taking up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in suitable container for disposal. Clean preferably with detergent; avoid use of solvents.

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Additional informations (chapter 6)

Immediately clean contaminated area with the following substances:

Water	45 Vol. %
Ethanol or Isopropyl Alcohol	50 Vol. %
Ammonia solution (density=0,88)	5 Vol. %

Alternative applicable to that (not flammable):

Sodium Carbonate	5 Vol. %
Water	95 Vol. %

7.) Handling and Storage

Handling

Advice on safe handling

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used. Comply with the health and safety at work laws. Do not eat or drink during work - no smoking.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Do not store together with:

Oxidizing agents

Alkalies

Acids

Amines

Alcohols

Further information on storage conditions

Always keep in containers of same material as the original one. See also instructions on the label. Avoid heating and direct sunlight. Keep container in a cool, well-ventilated place. Precautions should be taken to minimize exposure to atmospheric humidity or water: whereby CO₂ could be formed which could pressurize closed containers.

Recommended storage temperature

Value 59 - 86 °F

8.) Exposure controls/ personal protection

Exposure limit values

HEXAMETHYLENE-DIISOCYANATE

CAS no. 822-06-0

EC no. 212-485-8

ACGIH

Hexamethylene diisocyanate

TWA 0.005 ml/m³

Exposure controls

Engineering controls

Provide adequate ventilation. This could be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations below the OEL (Occupational Exposure Limit), suitable respiratory protection must be worn.

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Personal protective equipment

Respiratory protection

When spraying: Positive pressure air supplied respirator required (MHSA/NIOSH approved).

For applications other than spraying: In well ventilated areas, air supplied respirators could be replaced by properly fitted combination organic vapor/particulate NIOSH/MHSA approved respirators.

Wear an approved NIOSH/MHSA dust respirator when sanding or abrading the cured and dried film.

Hand protection

The following glove(s) should be used for protection :

Appropriate Material butyl rubber

Eye protection

Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

Skin protection

Wear clothing appropriate for handling chemicals. All parts of the body should be washed with soap and water after contact.

General protective and hygiene measures

Avoid product contact with skin, eyes and clothing. Avoid the inhalation of dust when sanding or abrading the cured film. Wash hands with soap and water after use.

9. Physical and chemical properties

General information

Form liquid
Color according product name
Odor characteristic

Important health, safety and environmental information

Changes in physical state

Value no data available

Flash point

Value 311 °F

Ignition temperature

Value not applicable

Explosion limits

Remarks not applicable

Density

Value 9.35 lbs/gallon

Reference temperature 68 °F

Viscosity

Type dynamic

Value 1500 - 4000 mPa*s

Solubility in water

Remarks insoluble

Solvent content

Value 0 % vol

Solvent separation test

Value < 3 % vol

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10.) Stability and reactivity

Conditions to avoid

Stable under recommended storage and handling conditions (See Section 7).

Materials to avoid

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Exothermal reactions with: Amines; Alcohols; The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result distortion.

Hazardous decomposition products

In a fire, hazardous decomposition products, such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, monomers of isocyanates, amines and alcohols may be produced.

11.) Toxicological information

Experience in practice

The liquid splashed in the eyes may cause irritation and reversible damage. Sensitization possible through inhalation. Possibility of sensitization through skin contact..

Other information

Based on the properties of the isocyanate components and considering toxicological data on similar preparations: This Preparation may cause acute irritation and/or sensitization of the respiratory system leading to an asthmatic condition, Wheeziness and a tightness of the chest. Sensitized persons may subsequently show asthmatic symptoms when exposed To atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability.

12.) Ecological information

Other adverse effects

Ecological data are not available.

Do not discharge product unmonitored into the environment.

13.) Disposal Considerations

Product

Dispose in accordance with federal, state and local regulations.

14.) Transport information

Other information

The product is not defined under national/international road, rail, sea and air transport regulations as a Hazardous material. Not DOT regulated.

15.) Regulatory information

Regulations

US Federal Regulations

TSCA (Toxic Substances Control Act)

All of the components of this product are either listed on the TSCA Inventory or are not subject to the Notification requirements (exempt).

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Clean Water Act (CWA)

None of the ingredients is listed.

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

Following ingredients are Hazardous by definition of Hazard Communication Standard:

CAS-No. 28182-81-2; 822-06-0

SARA Section 302 (RQ):

None of the ingredients is listed.

SARA HAZARD CATEGORY (Section 311/312)

Acute Health Hazards

SARA Section 313

None of the ingredients is listed.

HAPS (Hazardous Air Pollutants) according to Clean Air Act

Following ingredients are listed:

CAS-No. 822-06-0<0.5%

State Regulations

California Proposition 65.

None of the ingredients is listed.

Pennsylvania HAZARDOUS SUBSTANCE LIST

None of the ingredients is listed.

New Jersey Worker and Community Right to Know Act.

Following ingredients are listed:

CAS-No. 822-06-0<0.5%

Other international listings

IRAC

None of the ingredients is listed in group 1, 2A or 2B.

Volatile organic compounds (VOC)

Pound/gallon 0

16.) Other information

HMIS Classification

Health 2

Flammability: 1

Reactivity 1

PPE G

NFPA Rating

Health 2

Fire Hazard 1

Reactivity 1

Other information

Abbreviations

ACGIH American Conference of Governmental Hygienics

CAS Chemical Abstracts Service

HAPS Hazardous Air Pollutants

HMIS Hazardous Material Identification System

IARC International Agency for Research on Cancer

IDLH Immediate Dangerous to Life and Health

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LEL Lower Explosion Limit
NTP National Toxicology Program
OEL Occupational Safety and Health Administration
PEL Permissible Exposure Limit
PPE Personal Protection Equipment
SARA Superfund Amendments and Reauthorization Act
STEL Short-Term Exposure Level (15 minutes)
TWA Time-Weighted Average (8 hours)
UEL Upper Explosion Limit
VOC Volatile Organic Compounds
WEEL Workplace Environmental Exposure Level

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any Specific product and shall not establish a legally valid relationship.