

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

1 Identification

- **Product identifier**
- **Trade name: X-Protect Vinyl and Linoleum High Gloss Part B**
- **Recommended use and restriction on use**
- **Recommended use:** Hardening agent/ Curing agent
- **Restrictions on use:** Contact manufacturer.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
xGen, LLC
118 Rochester Drive
Louisville, KY 40214
Phone: (502) 364-6050
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS07

Acute Tox. 4 H332 Harmful if inhaled.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

Hexane, 1,6-diisocyanato-, homopolymer
 HDI oligomers, isocyanurate

- **Hazard statements**

H332 Harmful if inhaled.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.

- **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray
 P280 Wear protective gloves.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing must not be allowed out of the workplace.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 1)

- P321 Specific treatment (see on this label).
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 Call a poison center/doctor if you feel unwell.
 P363 Wash contaminated clothing before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P302+P352 If on skin: Wash with plenty of water.
 P405 Store locked up.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:**
- **WHMIS-symbols:**
D2B - Toxic material causing other toxic effects



- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

28182-81-2	Hexane, 1,6-diisocyanato-, homopolymer ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	60-80%
28182-81-2	HDI oligomers, isocyanurate ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	20-40%

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015


Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B


(Contd. of page 2)

· **Notable Trace Components ($\leq 0,1\%$ w/w)**

822-06-0	hexamethylene-di-isocyanate
----------	-----------------------------

	<ul style="list-style-type: none">  Acute Tox. 1, H330
--	--

	<ul style="list-style-type: none">  Resp. Sens. 1, H334
--	---

	<ul style="list-style-type: none">  Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335
--	--

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

· **After inhalation:**

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· **After skin contact:**

Do not pull solidified product away from the skin.

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact:**

Immediately remove contact lenses if possible.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed**

Asthma attacks

Slight irritant effect on eyes.

May cause respiratory irritation.

Slight irritant effect on skin and mucous membranes.

Gastric or intestinal disorders when ingested.

Coughing

Breathing difficulty

Allergic reactions

· **Danger**

Harmful if inhaled.

Danger of impaired breathing.

Danger of disturbed cardiac rhythm.

· **Indication of any immediate medical attention and special treatment needed**

Contains isocyanates. May produce an allergic reaction.

If necessary oxygen respiration treatment.

Monitor circulation, possible shock treatment.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 3)

In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.
Contains Hexane, 1,6-diisocyanato-, homopolymer, HDI oligomers, isocyanurate. May produce an allergic reaction.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
- **Additional information** Evacuate area and fight fire from the upwind side.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep people at a distance and stay upwind.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Avoid splashes or spray in enclosed areas.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Keep receptacles tightly sealed.
- **Information about protection against explosions and fires:**
Keep respiratory protective device available.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 4)

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store only in the original receptacle.
 - Provide ventilation for receptacles.
 - Avoid storage near extreme heat, ignition sources or open flame.
 - Protect from humidity and water.
- **Information about storage in one common storage facility:**
 - Do not store together with alkalis (caustic solutions).
 - Store away from oxidizing agents.
 - Store away from foodstuffs.
- **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - The usual precautionary measures for handling chemicals should be followed.
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Do not inhale gases / fumes / aerosols.
 - Avoid contact with the eyes and skin.
- **Engineering controls:** No further relevant information available.
- **Breathing equipment:**



Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 5)

- **Material of gloves**

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

Contact lenses should not be worn.



Safety glasses

- **Body protection:**

Protective work clothing
Full head, face and neck protection

- **Limitation and supervision of exposure into the environment**

No further relevant information available.

- **Risk management measures**

See Section 7 for additional information.
No further relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Liquid
Color:	Light yellow
Odor:	Mild
Odor threshold:	Not determined.

pH-value:	Not determined.
------------------	-----------------

- **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

Flash point:	338 ° F / 170 ° C (640 ° F / 338 ° F)
---------------------	---------------------------------------

Flammability (solid, gaseous):	Not applicable.
---------------------------------------	-----------------

Auto-ignition temperature:	Not determined.
-----------------------------------	-----------------

Decomposition temperature:	Not determined.
-----------------------------------	-----------------

Auto igniting:	Product is not self-igniting.
-----------------------	-------------------------------

Danger of explosion:	Product does not present an explosion hazard.
-----------------------------	---

- **Explosion limits:**

Lower:	Not determined.
---------------	-----------------

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 6)

<ul style="list-style-type: none"> Upper: · Vapor pressure: · Density at 20 °C (68 °F): · Relative density · Vapour density · Evaporation rate · Solubility in / Miscibility with Water: · Partition coefficient (n-octanol/water): · Viscosity: <ul style="list-style-type: none"> Dynamic: Kinematic: · Other information 	<p>Not determined.</p> <p>Not determined.</p> <p>1.15 g/cm³ (9.597 lbs/gal)</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not miscible or difficult to mix.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>No further relevant information available.</p>
--	---

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Possibility of hazardous reactions**
 - Reacts with water.
 - Reacts with amines.
 - Reacts with strong alkali.
 - Reacts with alcohols.
 - Exothermic polymerization.
 - Toxic fumes may be released if heated above the decomposition point.
 - Reacts with humid air.
- **Conditions to avoid**
 - Store away from oxidizing agents.
 - Moisture.
 - Keep away from heat and direct sunlight.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
 - Carbon monoxide and carbon dioxide
 - Nitrogen oxides
 - Isocyanate
 - Hydrogen cyanide (prussic acid)

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 7)

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

LD/LC50 values that are relevant for classification:

28182-81-2 Hexane, 1,6-diisocyanato-, homopolymer

Oral LD50 >5000 mg/kg (rat)

Dermal LD50 >5000 mg/kg (rabbit)

28182-81-2 HDI oligomers, isocyanurate

Oral LD50 >5000 mg/kg (rat)

Dermal LD50 >5000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Slight irritant effect on skin and mucous membranes.
- **on the eye:** Slight irritant effect on eyes.
- **Sensitization:**
Sensitization possible through skin contact.
Sensitizing effect through inhalation is possible with prolonged exposure.
- **Additional toxicological information:**
Harmful
Irritant
Danger through skin absorption.
Toxic and/or corrosive effects may be delayed up to 12 hours.

Carcinogenic categories

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

Probable Routes of Exposure

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Irritating to respiratory system.
- **Repeated Dose Toxicity:** Repeated exposures may result in skin and/or respiratory sensitivity.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 8)

- **Ecotoxicological effects:**
- **Remark:** The product is oxygen-consuming. The declared action may be partly caused by lack of oxygen.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADR, ADN, IMDG, IATA | Not Regulated |
| · UN proper shipping name | |
| · DOT, ADR, ADN, IMDG, IATA | Not Regulated |
| · Transport hazard class(es) | |
| · DOT, ADR, ADN, IMDG, IATA | |
| · Class | Not Regulated |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Not Regulated |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 9)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- SARA

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65 (California)**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **State Right to Know Listings**

None of the ingredients is listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

(Contd. on page 11)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date 06/26/2015

Reviewed on 06/26/2015

Trade name: X-Protect Vinyl and Linoleum High Gloss Part B

(Contd. of page 10)

· **Other regulations, limitations and prohibitive regulations**

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 06/26/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· **Sources**

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com