

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
OSHA GHS

Printing date 16.10.2014



Revision: 16.10.2014



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

- **1.1 Product identifier**
- **Trade name:** PolyShell 1000 Part B
- **Article number:** 241002
- **CAS Number:**
28182-81-2
- **EC number:**
931-274-8
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Coating
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Convenience Products, division of Clayton Corp.
866 Horan Drive
Fenton, MO 63026-2416
Phone: 636-349-5855
- **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924, +1 (813)248-0585



SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H334.
-  health hazard
 Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- 

 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.
- · **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 -  Xn; Harmful
R20: Harmful by inhalation.
 -  Xn; Sensitising
R42/43: May cause sensitisation by inhalation and skin contact.

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 Xi; Irritant

R37: Irritating to respiratory system.

- **Information concerning particular hazards for human and environment:** Not applicable.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the Globally Harmonized System within the United States (GHS).

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



This pictogram only applicable for OSHA GHS regulations. Not for use in the European Union.



GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**

HDI oligomers, isocyanurate

hexamethylene-di-isocyanate

- **Hazard statements**

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H334. H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

- **Precautionary statements**

P285 In case of inadequate ventilation wear respiratory protection.

P261 Avoid breathing mist/vapours/spray.

P280 Wear protective gloves / eye protection.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

Contains isocyanates. May produce an allergic reaction.

- **Hazard description:**

- **WHMIS-symbols:**

D2A - Very toxic material causing other toxic effects

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



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

HEALTH	2	Health = 2
FIRE	1	Fire = 1
REACTIVITY	0	Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

- **HMIS Long Term Health Hazard Substances**

822-06-0	hexamethylene-di-isocyanate
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- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Substances**

- **CAS No. Description**

28182-81-2 HDI oligomers, isocyanurate

- **Identification number(s)**

- **EC number:** 931-274-8

- **Dangerous components:**

CAS: 822-06-0	hexamethylene-di-isocyanate	< 0,5%
EINECS: 212-485-8	T R23; Xn R42/43; Xi R36/37/38	
Index number: 615-011-00-1	Acute Tox. 1, H330 Resp. Sens. 1, H334 Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	

SECTION 4: First aid measures

- **4.1 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.

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Take affected persons out into the fresh air.

- **After inhalation:**

Supply fresh air.

Seek immediate medical advice.

Seek medical help for symptoms or if unconscious.

Provide oxygen treatment if affected person has difficulty breathing.

- **After skin contact:**

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. Then consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**

Asthma attacks

Breathing difficulty

Coughing

Allergic reactions

May cause respiratory irritation.

- **Hazards**

Danger of impaired breathing.

May be harmful if inhaled.

May cause sensitisation by inhalation and skin contact.

- **4.3 Indication of any immediate medical attention and special treatment needed**

Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains HDI oligomers, isocyanurate, hexamethylene-di-isocyanate. May produce an allergic reaction.

In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

If necessary oxygen respiration treatment.

Monitor circulation.

Medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

- **For safety reasons unsuitable extinguishing agents:** None.

- **5.2 Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

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· **Additional information** No further relevant information available.

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SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Isolate area and prevent access.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Send for recovery or disposal in suitable receptacles.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Provide ventilation for receptacles.
Avoid storage near extreme heat, ignition sources or open flame.
- **Information about storage in one common storage facility:**
Do not store together with oxidising and acidic materials.
Protect from humidity and water.
Store away from foodstuffs.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

822-06-0 hexamethylene-di-isocyanate

REL (USA)	Long-term value: 0,035 mg/m ³ , 0,005 ppm Ceiling limit: 0,14* mg/m ³ , 0,02* ppm *10-min
TLV (USA)	Long-term value: 0,034 mg/m ³ , 0,005 ppm NIC-BEI
EL (Canada)	Long-term value: 0,005 ppm Ceiling limit: 0,01 ppm S
EV (Canada)	Long-term value: 0,005 ppm Ceiling limit: 0,02 ppm

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
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.

· Respiratory protection:



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

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

· 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.

· 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.

· 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.

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- **Eye protection:**
Contact lenses should not be worn.



Safety glasses

- **Body protection:** Protective work clothing
- **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.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Colour:	Not determined.
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

Melting point/Melting range:	Not Determined.
Boiling point/Boiling range:	428 °F / 220 °C (1 atm / 1.013 bar)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto/Self-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Not determined.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.
- **Vapour pressure at 50 °C:** 12 mm Hg
- **Density at 20 °C:** 1,12 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not determined.

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- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
 - VOC content:** Not determined
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong acids and oxidising agents.
Contact with acids releases toxic gases.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Isocyanate

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

28182-81-2 HDI oligomers, isocyanurate

Oral	LD50	>5000 mg/kg (rat) Estimated Value
Dermal	LD50	>5000 mg/kg (rabbit)

822-06-0 hexamethylene-di-isocyanate

Oral	LD50	959 mg/kg (rat)
Dermal	LD50	593 mg/kg (rat)
Inhalative	LC50/4h	124 mg/m ³ (rat)

- **Primary irritant effect:**
- **on the skin:** Slight to moderate redness may occur with exposure.
- **on the eye:** Causes moderate irritation.

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- **Sensitisation:**
Sensitisation possible through inhalation.
Sensitisation possible through skin contact.
- **Additional toxicological information:**
Danger through skin adsorption.
Toxic and/or corrosive effects may be delayed up to 24 hours.
- **Acute effects (acute toxicity, irritation and corrosivity):** Harmful if inhaled.
- **Sensitisation:**
May cause an allergic skin reaction.
May cause sensitisation by inhalation and skin contact.
- **Repeated dose toxicity:**
May cause damage to organs through prolonged or repeated exposure.
Repeated exposures may result in skin and/or respiratory sensitivity.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water Hazard Class (Self-classification) in the concentrate.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
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.
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.
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.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

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

SECTION 15: Regulatory information

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

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

Substance is not listed.

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

Substance is not listed.

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

Substance is listed.

- **Proposition 65 (California):**

- **Chemicals known to cause cancer:**

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

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- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

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

Substance is not listed.

- **Canada**

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

Substance is listed.

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

822-06-0 | hexamethylene-di-isocyanate

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

Substance is not listed.

- **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.

- **Substances of very high concern (SVHC) according to REACH, Article 57**

Substance is not listed.

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

SECTION 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.

- **Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H330 Fatal if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

R23 Toxic by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R42/43 May cause sensitisation by inhalation and skin contact.

- **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

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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
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
Acute Tox. 1: Acute toxicity, Hazard Category 1
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Sources

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