Printing date 07/28/2005

Reviewed on 09/10/2004

1 Identification of substance

· Product details

· Trade name: 40671 40678 Pro-Tex Catalyst

· Article number: 40671;40678

· Manufacturer/Supplier:

SEM Products, Inc. 651 Michael Wylie Dr. Charlotte, NC 28217

USA

(704)522-1006

· Information department: 24HR EMERGENCY CHEMTREC 800-424-9300

2 Composition/Data on components

- · Chemical characterization:
- · CAS No. Description

28182-81-2 1,6-HEXAMETHYLENE DIISOCYANATE

- · Chemical characterization
- · Dangerous components:

822-06-0 hexamethylene-di-isocyanate

 $\leq 2.5\%$

3 Hazards identification

· Hazard description:



Harmful

· Information pertaining to particular dangers for man and environment:

Harmful if swallowed.

Irritating to eyes, respiratory system and skin.

May cause sensitisation by inhalation and skin contact.

Harmful: possible risk of irreversible effects through inhalation.

Contains isocyanates. See information supplied by the manufacturer.

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



Health = 2Fire = 1

Reactivity = 1

· HMIS-ratings (scale 0 - 4)



*2 *Health* = *2

Fire = 1

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4 First aid measures

· General information:

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

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

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

· After swallowing: Immediately call a doctor.

5 Fire fighting measures

- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Person-related safety precautions: Not required.
- · Measures for environmental protection: Dilute with plenty of water.
- · Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage

- · Handling.
- · Information for safe handling: Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: No special measures required.
- · Storage.
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.

8 Exposure controls and personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Components with limit values that require monitoring at the workplace:

822-06-0 hexamethylene-di-isocyanate

REL Short-term value: C 0.14* mg/m³, C 0.2 ppm Long-term value: 0.035 mg/m³, 0.005 ppm *10-min

 $TLV = 0.034 \text{ mg/m}^3, 0.005 \text{ ppm}$

- · Additional information: The lists that were valid during the creation were used as basis.
- · Personal protective equipment:
- General protective and hygienic measures:
 Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

Form:	Fluid
Color:	Yellow
Odor:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 203°C (> 397°F)
· Flash point:	166°C (331°F)
Danger of explosion:	Product does not present an explosion hazard.
Density at 20°C (68°F):	1.14 g/cm^3
Solubility in / Miscibility with	
Water:	Fully miscible.
Organic solvents:	0.0 %
· Solids content:	100.0 %

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Dangerous reactions No dangerous reactions known.

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· Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

- · Acute toxicity:
- · LD/LC50 values that are relevant for classification:

28182-81-2 1,6-HEXAMETHYLENE DIISOCYANATE

 Oral
 LD50
 1000 mg/kg (rat)

 Dermal
 LD50
 5000 mg/kg (rabbit)

 Inhalative
 LC50/4 h
 137-1150 mg/l (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization:

Sensitization possible through inhalation. Sensitization possible through skin contact.

12 Ecological information

· General notes: Generally not hazardous for water

13 Disposal considerations

- · Product:
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- · DOT regulations:
- · Hazard class:
- · Land transport ADR/RID (cross-border):
- · ADR/RID class:
- · Maritime transport IMDG:
- · IMDG Class:
- · Marine pollutant: No
- · Air transport ICAO-TI and IATA-DGR:
- · ICAO/IATA Class: -

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15 Regulations

- · Sara
- · Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

822-06-0 hexamethylene-di-isocyanate

· TSCA (Toxic Substances Control Act):

822-06-0 hexamethylene-di-isocyanate

- · Proposition 65
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity:

Substance is not listed.

- · Cancerogenity categories
- · EPA (Environmental Protection Agency)

Substance is not listed.

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

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.

· OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

· Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:

Harmful

· Risk phrases:

Harmful if swallowed.

Irritating to eyes, respiratory system and skin.

May cause sensitisation by inhalation and skin contact.

Harmful: possible risk of irreversible effects through inhalation.

· Safety phrases:

Keep out of the reach of children.

Do not breathe dust.

Avoid contact with skin and eyes.

Wear suitable gloves.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Dispose of this material and its container to hazardous or special waste collection point.

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

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· Special labeling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer.

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.

- · Department issuing MSDS: Environment protection department.
- · Contact: Mr. George Wallace