

SAFETY DATA SHEET

10/26/2017

PremARC™ 70-90 Urethane Binder

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name: PremARC™ 70-90 Urethane Binder
Material Type: Isocyanate
Product Material Weight: 45 lbs Pail / 475 lbs Drums

Details of the supplier of the safety data sheet:

Supplier: American Recycling Center, Inc.
655 Wabassee Drive
Owosso, MI 48867

Emergency telephone number:

24-Hour Emergency Phone number: 800-424-9300
Customer Information Center: 989-725-5100

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture



GHS08 Health Hazard

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May causes an allergic skin reaction.
H335 May cause respiratory irritation.

Storage:

Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 Gas). Store locked up.

Label elements

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

Hazard pictograms



GHS07



GHS08

Signal word Danger

Hazard-determining components of labeling:

methylenediphenyl diisocyanate (MDI) Mixed Isomers

Hazard statements


Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.

May cause respiratory irritation.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.
 Wear respiratory protection.
 Wear protective gloves.
 Wear eye protection / face protection.
 Wash thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Contaminated work clothing must not be allowed out of the workplace.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Specific treatment (see on this label).
 If experiencing respiratory symptoms: Call a poison center/doctor.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Call a poison center/doctor if you feel unwell.
 Wash contaminated clothing before reuse.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 If on skin: Wash with plenty of water.
 Take off contaminated clothing and wash it before reuse.
 Store locked up.
 Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 gas).
 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:



NFPA ratings (scale 0 - 4)
 Health = 2
 Fire = 1
 Reactivity = 1

HMIS-ratings (scale 0 - 4)



HEALTH 2 Health = 2
 FLAMMABILITY 1 Fire = 1
 REACTIVITY 1 Reactivity = 1

Other hazards

Results of PBT and vPvB assessment
 PBT
 Not applicable.
 vPvB
 Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

- Chemical characterization: Mixtures
- Description: Polyurethane Prepolymer

· Dangerous components:		
26447-40-5	methylenediphenyl diisocyanate (MDI) Mixed Isomers	<25%

Additional information: CAS 101-68-8 is an MDI isomer that is a component of CAS 26447-40-5

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General information:



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

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of respiratory failure or breathing irregularities, commence resuscitation or administer oxygen.

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

After skin contact:

Instantly wash with water and soap and rinse thoroughly. Remove any contaminated clothing. If skin irritation persists, seek medical advice.

After eye contact:

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

After swallowing:

Do not induce vomiting; immediately call for medical help.

Information for doctor:

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray

For safety reasons unsuitable extinguishing agents:

Water with full jet

Special hazards arising from the substance or mixture

Can be released in case of fire:

Nitrogen Oxides (NO_x)

Carbon Monoxide (CO)

Hydrogen Cyanide (HCN)

Advice for firefighters

Protective equipment:

Wear breathing apparatus

Wear full protective suit with self-contained breathing apparatus

See section 8

Additional information

Dispose of fire debris and contaminated firefighting water in accordance with official regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Protective equipment:

Mount respiratory protective device.

Wear protective equipment.

Keep unprotected persons away.

Environmental precautions:

Do not allow product to reach sewage system or bodies of water.

Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Transfer to a waste container. Keep the material damp and exposed to the air in a secure area (CO₂-formation!) until completely solidified. The waste can then be disposed of on an approved landfill or a special refuse dump. Ensure adequate ventilation.

In the event of a large spill, treat spill area with decontamination solution. Preparation of decontamination solution:

Prepare a mixture of 0.2 - 0.5% liquid detergent and 3 - 8% concentrated ammonium hydroxide in water (5 - 10% sodium carbonate may be substituted for the ammonium hydroxide).

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

Handling

Precautions for safe handling:

- Ensure good ventilation/exhaust at the workplace.
- Keep containers tightly sealed.
- Prevent formation of aerosols.
- Exhaust ventilation required during spraying or when material is being used at temperatures above 100 degrees F.

Information about protection against explosions and fires:

- Pay attention to the general rules of internal fire prevention.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

- Recommended ideal storage temperature range: 59 - 77 degrees F.
- Product should not be stored below 40 degrees or above 110 degrees F.

Information about storage in one common storage facility:

- Store away from foodstuffs.

Further information about storage conditions:

- Keep container tightly sealed.
- Specific end use(s) No further relevant information available.

SECTION 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:	
26447-40-5 methylenediphenyl diisocyanate (MDI) Mixed Isomers	
ACGIH TLV	Short-term value: 0.05 mg/m ³
NIOSH REL/CEILING	Short-term value: 0.2 mg/m ³
NIOSH REL/TWA	Short-term value: 0.05 mg/m ³
OSHA PEL	Short-term value: 0.2 mg/m ³

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.
- Gases fumes and aerosols should not be inhaled.

Breathing equipment:

Airborne MDI concentrations greater than the ACGIH TLV-TWA (TLV) or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when MDI is sprayed, aerosolized or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or (b) a change out schedule, based on the objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OV/P100).

Hand protection:

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



The following glove types are recommended: neoprene, nitrile rubber or butyl rubber. Thin, disposable latex gloves should be avoided for repeated or long term handling of the material. Recommended thickness of the glove material: 5 - 6 mil Selection of the glove material should be based on the consideration of 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. As the product is a preparation of several substances, the resistance of the glove material cannot 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:



Tightly sealed goggles

Body Protection:

Protective work clothing

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance

Form	Liquid
Color	light to dark amber
Odor	Characteristic
Odor Threshold	Not determined
pH-value	Not determined

Change in condition:

Melting Point	Undetermined
Boiling Point	Undetermined
Flash Point	>200°C (>392°F)
Flammability	Not Applicable
(solid, gaseous)	
Ignition Temperature	
Decomposition Temp.	Not determined
Auto Igniting	Product does not self-ignite
Danger of Explosion	Product does not present an explosion hazard

Explosion Limits:

Lower:	Not determined
Upper:	Not determined

Vapor Pressure @ 20 °C(68°F)	Not determined
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Density @20 °C(68°F)	1.09 g.cm ³ (9.096 lbs/gal)
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Relative Density	Not determined
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Vapor Density	Not determined
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Evaporation Rate	Not determined
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Solubility in/ Miscibility With water	Insoluble, Reacts
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Partition Coefficient (n-octanol/water)	Not determined
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Viscosity	
Dynamic:	6500 mPas
Kinematic:	Not determined

Solvent Content	
Organic Solvents	0.0%
Solids Content	100.0%

Other Information	No further relevant information available
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SECTION 10: STABILITY AND REACTIVITY

Reactivity No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Possibility of hazardous reactions

Exothermic reaction with amines and alcohols

Reacts with water to liberate CO₂ gas which may build pressure in closed containers

Conditions to avoid:

No further relevant information available.

Incompatible materials:

No further relevant information available.

Hazardous decomposition products:

By Fire and High Heat: Carbon Monoxide, Carbon Dioxide, Oxides of Nitrogen and traces of HCN.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:		
26447-40-5 methylenediphenyl diisocyanate (MDI) Mixed Isomers		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50/4 h	2240 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.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Acquatic 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.

Additional ecological information:

General notes:

This product is not miscible with water. Reacts with water at the interface producing CO₂ gas and forming a solid and

insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (eg. detergents) or by water-soluble solvents. Previous experience demonstrates that polyurea is inert and non-degradable.
 Water hazard class 1 (self-assessment): slightly hazardous for water.

Results of PBT and vPvB assessment:

PBT: Not applicable.
 vPvB: Not applicable.

Other adverse effects

No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation:

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

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

Empty containers may only be disposed of after neutralising any product remaining on the walls of the containers with a mixture of isopropanol, ammonia and water and removal of the warning labels. For preparation of decontamination solution, refer to section 6.

SECTION 14: TRANSPORT INFORMATION

UN-Number:

DOT, ADR, ADN, IMDG, IATA Void

UN proper shipping name:

DOT, ADR, ADN, IMDG, IATA Void

Transport hazard class(es):

DOT, ADR, ADN, IMDG, IATA
 Class Void

Packing group:

DOT, ADR, IMDG, IATA Void

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.

Transport/Additional information:

DOT

Hazardous substance:

Single containers less than 5,000 lbs are not regulated. Single containers with 5,000 lbs or more of 4,4' methylenediphenyl diisocyanate are regarded as class 9, NA3082, PG III.

UN "Model Regulation":

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SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
 Sara

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

All ingredients listed

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is 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.

Carcinogenicity categories

EPA (Environmental Protection Agency)
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.

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

Hazard pictograms



GHS07



GHS08

Signal word Danger

Hazard-determining components of labeling:

methylenediphenyl diisocyanate (MDI) Mixed Isomers

Hazard statements

- Causes skin irritation.
- Causes serious eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause an allergic skin reaction.
- May cause respiratory irritation.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- Do not breathe dust/fume/gas/mist/vapors/spray.
 - Wear respiratory protection.
 - Wear protective gloves.
 - Wear eye protection / face protection.
 - Wash thoroughly after handling.
 - Use only outdoors or in a well-ventilated area.
 - Contaminated work clothing must not be allowed out of the workplace.
 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - Specific treatment (see on this label).
 - If experiencing respiratory symptoms: Call a poison center/doctor.
 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - Call a poison center/doctor if you feel unwell.
 - Wash contaminated clothing before reuse.
 - If skin irritation or rash occurs: Get medical advice/attention.
 - If eye irritation persists: Get medical advice/attention.
 - Get medical advice/attention if you feel unwell.
 - If on skin: Wash with plenty of water.
 - Take off contaminated clothing and wash it before reuse.
 - Store locked up.
 - Store in a well-ventilated place. Keep container tightly closed. In closed containers, there may be a risk of pressure build up due to water contamination (Liberated CO2 gas).
 - Dispose of contents/container in accordance with local/regional/national/international regulations.
- 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.

American Recycling Center urges each customer or recipient of this SDS to study it carefully and consult



appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date of the SDS. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that its activities comply with all applicable federal, state, provincial and local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of American Recycling Center, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, American Recycling Center, Inc. is not and cannot be responsible for (M)SDSs obtained from any source other than American Recycling Center, Inc. If you have obtained an American Recycling Center, Inc (M)(M)SDS from a non American Recycling Center, Inc. source or if you are not sure that the (M)(M)SDS is current, please contact American Recycling Center, Inc. for the most current version.

Department issuing M(M)SDS: EH&S Delivery

Contact: Customer Service 989-725-5100

Date: 10/26/2017

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

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

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. We warrant that our products will meet our written specifications. Nothing herein shall constitute and other warranty express or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.



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