

SAFETY DATA SHEET



Easy-Mix PU-90 Polyurethane Adhesive Resin

Section 1. Identification

GHS product identifier : Easy-Mix PU-90 Polyurethane Adhesive Resin
Product code : 107511
Other means of identification : Not available.
Color : Black.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Adhesives

Uses advised against

Not applicable.

Supplier's details : WEICON GmbH & Co. KG
Königsberger Str. 255,
48157 Münster, Germany
phone:+49 251 93220,
email: info@weicon.de,
URL: www.weicon.de

e-mail address of person responsible for this SDS : msds@weicon.de

Emergency telephone number (with hours of operation) : +1 202 464 2554
TRANSPORT (24 Hours/Day): +1 202 464 2554

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
RESPIRATORY SENSITIZATION - Category 1
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer.
H373 - May cause damage to organs through prolonged or repeated exposure.

Section 2. Hazards identification

Precautionary statements

Prevention	: P201 - Obtain special instructions before use. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves, protective clothing and eye or face protection.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: P501 - Dispose of waste according to applicable legislation.
Hazards not otherwise classified	: None known.
Hazards identified when used	: No known significant effects or critical hazards.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

Ingredient name	Synonyms	%	Identifiers
Isocyanic acid, polymethylenepolyphenylene ester	Polymethylenepolyphenyl isocyanate; Polymeric diphenylmethane diisocyanate; PAPI; polymeric MDI; METHYLENE DIPHENYL DIISOCYANATE; pMDI; Isocyanuric acid polymethylene polyphenyl isocyanate; MDI oligomers; DIPHENYLMETHANEDIISOCYANATE, isomers and homologues; Polymethylenepolyphenyl polyisocyanate; alpha-(Isocyanatobenzyl)-omega-(isocyanatophenyl)poly[(isocyanatophenylene)methylene]	≥10 - ≤30	CAS: 9016-87-9
4,4'-methylenediphenyl diisocyanate	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; Benzene, 1,1'-methylenebis[4-isocyanato-; Benzene, 1,1'-methylenebis(4-isocyanato-; 4,4'-Diisocyanatodiphenylmethane; 4,4'-Diphenylmethane diisocyanate; 4,4-Methylenediphenyl diisocyanate; Isocyanic acid, methylenedi-p-phenylene ester; Methylenebis[4-phenyl isocyanate; Methylene, 4,4'-diphenyl diisocyanate-; Methylene bisphenyl isocyanate (MDI)	≥10 - ≤30	CAS: 101-68-8
Reaction mass of 1,1'-methylenebis(4-isocyanatobenzene) and 1-isocyanato-2-(4-isocyanatobenzyl)benzene		≥3 - ≤7	-
4,4'-Methylenediphenyl diisocyanate, oligomers	Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer;	≥3 - ≤7	CAS: 25686-28-6

Section 3. Composition/information on ingredients

	<p>Benzene, 1,1'-methylenebis (4-isocyanato-; Polymer of bis (4-isocyanatophenyl)methane; Condensate (i.e. carbodiimide group-bearing isocyanate) or isocyanate monomer; 1,1'-Methylenebis [4-isocyanatobenzene] homopolymer; BENZENE, 1,1'-METHYLENEBIS (4-ISOCYANATO-, HOMOPOLYMER; POLYMER, MDI; 1,1'-methylenebis (4-isocyanatobenzene) homopolymer; Benzene, 1,1-methylenebis[4-isocyanato-, homopolymer; 4,4"-Methylenediphenyl diisocyanate, oligomers</p>		
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Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.

Section 4. First aid measures

- Inhalation** : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
Hydrogen cyanide (HCN).

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Isocyanic acid, polymethylenepolyphenylene ester 4,4'-methylenediphenyl diisocyanate	None. NIOSH REL (United States, 10/2020) TWA 10 hours: 0.05 mg/m ³ . TWA 10 hours: 0.005 ppm. CEIL 10 minutes: 0.2 mg/m ³ . CEIL 10 minutes: 0.02 ppm. CAL OSHA PEL (United States, 1/2025) TWA 8 hours: 0.051 mg/m ³ . TWA 8 hours: 0.005 ppm. OSHA PEL (United States, 5/2018) CEIL: 0.02 ppm. CEIL: 0.2 mg/m ³ . OSHA PEL 1989 (United States, 3/1989) CEIL: 0.02 ppm. CEIL: 0.2 mg/m ³ . ACGIH TLV (United States, 1/2025) TWA 8 hours: 0.005 ppm.
Reaction mass of 1,1'-methylenebis(4-isocyanatobenzene) and 1-isocyanato-2-(4-isocyanatobenzyl)benzene 4,4'-Methylenediphenyl diisocyanate, oligomers	None. None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended : ; Viton® , Butyl rubber gloves.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended : inorganic gases/vapors filter (Type B)

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Black.
- Odor** : Bland. [Strong]
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Not available.
- Boiling point or initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: >93.3°C (>199.9°F)
- Evaporation rate** : Not available.
- Flammability** : Highly flammable in the presence of the following materials or conditions: acids, alkalis and moisture.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapor pressure** :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
 4'-methylenediphenyl diisocyanate	0.0000052	0.00000069				

- Relative vapor density** : Not available.
- Relative density** : Not available.
- Density** : 1.28 g/cm³ [20°C (68°F)]
- Solubility in water** : Not available.
- Miscible with water** : No.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): 60000 mPa·s (60000 cP)
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

- Median particle size** : Not applicable.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

Isocyanic acid, polymethylenepolyphenylene ester

Result

Rat - Oral - LD50

49 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Changes in Chemistry or Temperature - Body temperature decrease

Rabbit - Dermal - LD50

>9400 mg/kg

Rat - Inhalation - LC50 Vapor

490 mg/m³ [4 hours]

Toxic effects: Eye - Other Lung, Thorax, or Respiration - Respiratory depression Blood - Hemorrhage

Rat - Inhalation - LC50 Dusts and mists

0.31 mg/l [4 hours]

4,4'-methylenediphenyl diisocyanate

Rat - Oral - LD50

9200 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Changes in Chemistry or Temperature - Body temperature decrease

Rat - Inhalation - LC50 Dusts and mists

0.368 mg/l [4 hours]

Reaction mass of 1,1'-methylenebis (4-isocyanatobenzene) and 1-isocyanato-2-(4-isocyanatobenzyl)benzene

Rat - Oral - LD50

>10000 mg/kg

Rabbit - Dermal - LD50

>9400 mg/kg

Rat - Inhalation - LC50 Vapor

0.49 mg/l [4 hours]

4,4'-Methylenediphenyl diisocyanate, oligomers

Rat - Inhalation - LC50 Dusts and mists

0.49 mg/l [4 hours]

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

Serious eye damage/eye irritation

Product/ingredient name

Isocyanic acid, polymethylenepolyphenylene ester
4,4'-methylenediphenyl diisocyanate

Result

Rabbit - Eyes - Mild irritant

Amount/concentration applied: 100 mg

Rabbit - Eyes - Moderate irritant

Amount/concentration applied: 100 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Isocyanic acid, polymethylenepolyphenylene ester	-	3	-
4,4'-methylenediphenyl diisocyanate	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

Section 11. Toxicological information

Isocyanic acid, polymethylenepolyphenylene ester	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
4,4'-methylenediphenyl diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Reaction mass of 1,1'-methylenebis(4-isocyanatobenzene) and 1-isocyanato-2-(4-isocyanatobenzyl)benzene	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Isocyanic acid, polymethylenepolyphenylene ester	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 2
4,4'-methylenediphenyl diisocyanate	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 2
Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 2

Aspiration hazard

Not available.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact	: Causes skin irritation. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma
Skin contact	: Adverse symptoms may include the following: irritation redness
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Long term exposure

Potential immediate effects	: Not available.
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Section 11. Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Easy-Mix PU-90 Polyurethane Adhesive Resin	N/A	N/A	N/A	53.7	5.8
Isocyanic acid, polymethylenepolyphenylene ester	49000	N/A	N/A	11	N/A
4,4'-methylenediphenyl diisocyanate	9200	N/A	N/A	N/A	1.5
Reaction mass of 1,1'-methylenebis(4-isocyanatobenzene) and 1-isocyanato-2-(4-isocyanatobenzyl)benzene	N/A	N/A	N/A	11	1.5
Benzene, 1,1'-methylenebis[4-isocyanato-, homopolymer	N/A	N/A	N/A	N/A	1.5

Section 12. Ecological information

Toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
4,4'-methylenediphenyl diisocyanate	4.51	200 [OECD 305 E]	Low
4,4'-Methylenediphenyl diisocyanate, oligomers	8.56	200 [OECD 305 E]	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Section 12. Ecological information

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN3082	Not available.	Not available.	Not available.	Not available.
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-methylenediphenyl diisocyanate)	Not available.	Not available.	Not available.	Not available.
Transport hazard class(es)		Not available.	Not available.	Not available.	Not available.
Packing group	III	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Additional information

DOT Classification : **Reportable quantity** 33333.3 lbs / 15133.3 kg [3123.3 gal / 11822.9 L]. The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 8(a) PAIR: 4,4'-methylenediphenyl diisocyanate

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

TSCA 8(c) calls for record of SAR: Isocyanic acid, polymethylenepolyphenylene ester; 4,4'-methylenediphenyl diisocyanate

TSCA 12(b) - Chemical export notification

Not applicable.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : SKIN IRRITATION - Category 2
 EYE IRRITATION - Category 2A
 RESPIRATORY SENSITIZATION - Category 1
 SKIN SENSITIZATION - Category 1
 CARCINOGENICITY - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Composition/information on ingredients

Name	%	Classification
Isocyanic acid, polymethylenepolyphenylene ester	≥10 - ≤30	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
4,4'-methylenediphenyl diisocyanate	≥10 - ≤30	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Reaction mass of 1,1'-methylenebis	≥3 - ≤7	ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2

Section 15. Regulatory information

(4-isocyanatobenzene) and 1-isocyanato-2- (4-isocyanatobenzyl)benzene		EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
4,4'-Methylenediphenyl diisocyanate, oligomers	≥3 - ≤7	

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	≥10 - ≤30
	4,4'-methylenediphenyl diisocyanate	101-68-8	≥10 - ≤30
Supplier notification	Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	≥10 - ≤30
	4,4'-methylenediphenyl diisocyanate	101-68-8	≥10 - ≤30

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: METHYLENE BISPHENYL ISOCYANATE
- New York** : The following components are listed: Methylene diphenyl diisocyanate
- New Jersey** : The following components are listed: METHYLENE DIPHENYL DIISOCYANATE (POLYMERIC); METHYLENE BISPHENYL ISOCYANATE
- Pennsylvania** : The following components are listed: BENZENE, 1,1'-METHYLENEBIS [4-ISOCYANATO-

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : Not determined.
- Canada** : Not determined.
- China** : Not determined.
- Eurasian Economic Union** : Russian Federation inventory: Not determined.
- Japan** : Japan inventory (CSCL): Not determined.
 Japan inventory (ISHL): Not determined.

Section 15. Regulatory information

New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	*	2
Flammability		1
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
RESPIRATORY SENSITIZATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method

History

Date of printing	: 2/3/2026
Date of issue/Date of revision	: ***
Date of previous issue	: 11/4/2025
Version	: 2

Key to abbreviations	: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor DOT = Department of Transportation GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods IMO = International Maritime Organization LogPow = logarithm of the octanol/water partition coefficient
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Section 16. Other information

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available

SGG = Segregation Group

TDG = Transportation of Dangerous Goods

UN = United Nations

References

: Not available.

▣ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.