
SECTION 1 – IDENTIFICATION

Product Name: PC[®] 88 adhesive Component 2

Manufacturer/Supplier:
Pittsburgh Corning Corporation
800 Presque Isle Drive
Pittsburgh, PA 15239

Information Number: 724-327-6100
CHEMTREC: 800/424-9300

Generic Name: Solvent based adhesive/sealant

Use: PC[®] 88 Adhesive Component 2 is part 2 of a two part adhesive used to bond FOAMGLAS[®] insulation to itself or to other porous or nonporous substrates.

Chemical Family: Mixture

General Comments: General information and emergency information available 8:00 AM – 5:00 PM Monday through Friday.

CHEMTREC telephone number is to be used only in the event of chemical transportation emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to technical service.

SECTION 2 – HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute toxicity, oral	Category 3
Acute toxicity, inhalation	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogen	Category 2
Specific target organ toxicity - single exposure (respiratory tract irritation)	Category 3
Specific target organ toxicity - repeated exposure	Category 2
Hazardous to the aquatic environment, long-term aquatic hazard	Category 2



ENVIRONMENTAL HAZARDS:

Hazardous to the aquatic environment, Category 2
Long-term aquatic hazard

SIGNAL WORD: **DANGER**

HAZARD STATEMENT: H301 - Toxic if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled
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
H411 - Toxic to aquatic life with long lasting effects.

HAZARDOUS POLYMERIZATION: Will Not Occur

ROUTES OF EXPOSURE: Inhalation, Skin, Eyes and Ingestion.

IMMEDIATE EFFECTS:

May cause cancer. Also toxic if swallowed. Also very toxic by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Also harmful: danger of serious damage to health by prolonged exposure through inhalation. Also toxic: danger of serious damage to health by prolonged exposure if swallowed. Occupational exposure to the substance or mixture may cause adverse health effects

INHALATION: Coughing. Irritation of nose and throat. Severe eye irritation. Irritation of eyes and mucous membranes. May cause respiratory irritation. Difficulty in breathing.

SKIN CONTACT: May cause an allergic skin reaction. Prolonged or repeated contact may cause irritation, dermatitis, rash, redness and pain.

EYE CONTACT: Irritation, symptoms may include stinging, tearing, redness, swelling, and blurred vision.

INGESTION: Toxic if swallowed.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

ACUTE: None.

CHRONIC: Prolonged exposure may cause chronic effects. May cause cancer. May cause sensitization by inhalation and skin contact. Also harmful: danger of serious damage to health by prolonged exposure through inhalation.

Carcinogenicity – This product is suspected of causing cancer, however there are no components in this product that are listed as a carcinogen by NTP, IARC, ACGIH or OSHA.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	App. % by wt.	CAS #	REACH REG. #	INDEX #
4,4'-Methylenediphenyl Diisocyanate	30 - < 40	26447-40-5	-	615-005-00-9
Diphenylmethane Diisocyanate [Isomers And Homologues]	30 - < 40	9016-87-9	-	
Other components below reportable levels	30 - < 40		-	

SECTION 4 – FIRST AID MEASURES

GENERAL ADVICE: Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, end take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood
P260	Do not breathe mist or vapor.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protect
P308 + P313	IF exposed or concerned: Get medical advice/attention. If you feel unwell seek medical advice. (Show the label when possible.)
P321	Specific treatment (see this label).

INHALATION:	P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	P312	Call a POISON CENTER/doctor if you feel unwell.
	P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

SKIN CONTACT:	P302 + P352	IF ON SKIN: Wash with plenty of water.
	P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
	P362 + P364	Take off contaminated clothing and wash it before reuse.

EYE CONTACT:	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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INGESTION:	P301 + P310 P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
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SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Water fog, Foam, CO₂, or Dry Chemical. If entering a confined area, use self-contained breathing apparatus.

EXPLOSION DATA:

SENSITIVITY TO MECHANICAL IMPACT: Stable
SENSITIVITY TO STATIC DISCHARGE: Stable

UNUSUAL FIRE AND EXPLOSION HAZARDS: During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include but are not limited to: nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide, and carbon dioxide. Dense smoke is produced when it burns. At

temperatures greater than 204°C (400°F) isocyanates can polymerize and decompose, which can cause pressure build up in closed containers. Explosive rupture is possible. Therefore, use cold water to cool fire exposed containers. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Product reacts with water. This reaction may be violent. Reaction may produce heat or gases

HAZARDOUS COMBUSTION PRODUCTS: Carbon Monoxide, Carbon Dioxide nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide, and carbon dioxide.

SPECIAL FIRE FIGHTING MEASURES: P370 + P378 In case of fire: Use appropriate media to extinguish. Full emergency equipment with self –contained breathing apparatus and full protective clothing should be worn by firefighters.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PRECAUTIONS FOR PERSONNEL: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapors or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS

ENVIRONMENTAL PRECAUTIONS: P273 Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

PROCESS FOR CLEANING: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

REGULATORY REQUIREMENTS: Follow applicable OSHA regulations (29 CFR 1910.120).

SECTION 7 – HANDLING AND STORAGE

HANDLING: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains

P261 Avoid breathing vapors.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.

STORAGE: P233 Keep container tightly closed.
 P403 + P235 Store in a well-ventilated place. Keep cool.
 P405 Store locked up.

SECTION 8 – EXPOSURE RESTRICTIONS AND PERSONAL PROTECTION

EXPOSURE LIMITS

INGREDIENT	APP. % BY WT.	TLV	NIOSH REL TWA	PEL	CAS #
4,4'-Methylenediphenyl Diisocyanate	30 - < 40	NE	NE	NE	26447-40-5
Diphenylmethane Diisocyanate [Isomers And Homologues]	30 - < 40	0.005 ppm	0.2 mg/m ³ 0.02 ppm	0.2 mg/m ³ 0.02 ppm	9016-87-9

Other components below reportable levels

EXPOSURE GUIDELINES: See Above.

ENGINEERING CONTROLS: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: If contact is likely, safety glasses with side shields are recommended.

SKIN PROTECTION: Wear appropriate chemical resistant gloves. Wear normal protective work clothing with long sleeved shirt.

RESPIRATORY PROTECTION: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

ENVIRONMENTAL EXPOSURE CONTROL Avoid discharge to drains, sewers and natural water supply.

WORK/HYGIENIC PRACTICES: Avoid contact with eyes and skin. Wash thoroughly after handling and before eating or drinking. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9 – PHYSICAL PROPERTIES

Appearance:	Dark brown liquid	Flash Point : °C (°F) TCC	177 (350.6)
Odor:	slightly musty odor	Ignition Temperature: °C (°F)	UN
Odor Threshold:	NE	Evaporation Rate (BuAC=1)	1.2
pH	NA	Flammability:	Non-Flammable
Melting Point/Freezing Point: °C (°F)	< 0 (<32)	Flammable Limits: LEL	NA
		UEL	NA
Boiling Point: °C (°F)	208 (406.4)	Auto-ignition temperature	NE
Solubility in Water:	Insoluble	Vapor Pressure: (MM Hg): pH:	0.00004 hPa estimated
Partition Coefficient: n-octanol/water:	NE	Vapor Density: (Air = 1)	8.5
Decomposition Temperature	NE	Specific Gravity: (H ₂ O = 1):	1.23
Viscosity	UN	Density: lbs./gal (Calculated)	10.3
VOC: g/l (lbs./gal)	64 (0.53)	Percent Volatile By Volume: (%)	Nil

SECTION 10 – STABILITY AND REACTIVITY

REACTIVITY. The product is stable and non-reactive under normal conditions of use, storage and transport.

STABILITY: Material is stable under normal conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: No dangerous reaction known under conditions of normal use.

CONDITIONS TO AVOID: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

MATERIALS TO AVOID: None known

DECOMPOSITION PRODUCTS: No hazardous decomposition products are known. Thermal decomposition may produce toxic fumes of CO and /or CO₂.

SECTION 11 – TOXICOLOGICAL INFORMATION

CAS #	INGREDIENT	DERMAL LD50	INHALATION LC50	ORAL LD50
26447-40-5	4,4'-Methylenediphenyl Diisocyanate	NE	490 mg/m ³ (rat)	>2000 mg/m ³ (rat)
9016-87-9	Diphenylmethane Diisocyanate [Isomers And Homologues]	9400 mg/kg (rabbit)	0.369/m ³ (rat) 4hr	10 g/kg (rat)

CAS #	INGREDIENT	CARCINOGENICITY		TERATOGENICITY	MUTAGENICITY
		ACGIH	IARC		
26447-40-5	4,4'-Methylenediphenyl Diisocyanate	NE	NE	NE	NE
9016-87-9	Diphenylmethane Diisocyanate [Isomers And Homologues]	NE	NE	NE	NE

SECTION 12 – ECOLOGICAL INFORMATION

P273 Avoid release to the environment

ECOTOXICITY: Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

PERSISTENCE AND DEGRADABILITY: No data is available on the degradability of this product.
 BIOACCUMULATIVE POTENTIAL: Not available.
 MOBILITY IN SOIL: No data available.
 OTHER ADVERSE EFFECTS: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 – DISPOSAL CONSIDERATIONS

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

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its

container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION 14 – TRANSPORT INFORMATION

SPECIAL SHIPPING INFORMATION: None

DOT SHIPPING CLASS: Not regulated as dangerous goods.

IATA/IMDG Not regulated as dangerous goods.

Passenger and cargo aircraft Allowed

Cargo aircraft only Allowed

DOT SHIPPING LABEL: Not Required

ADR; IATA; IMDG; RID SHIPPING LABEL: Not Required

SECTION 15 – REGULATORY INFORMATION

US Regulatory Information

OSHA 29 CFR 1910-1200

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

TSCA

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA Title III:

SARA SECTION 302: Not Listed
SARA SECTION 304: Not Regulated
SARA (311,312) HAZARD CLASS: Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard – No
Pressure Hazard – No
Reactivity Hazard - No

SARA (311.312) CHEMICALS:

No

SARA (313) TRI reporting)

Chemical Name	CAS Number	% by Wt.
Diphenylmethane Diisocyanate [Isomers And Homologues]	9016-87-9	30 - < 40

CERCLA:

Listed Diphenylmethane Diisocyanate [Isomers And Homologues] (CAS 9016-87-9)

RCRA:

Refer to section 13

CPSC CLASSIFICATION:

NA

HMIS: FLAMMABILITY: 0 REACTIVITY: 0 HEALTH: 4

NFPA: FLAMMABILITY: 0 REACTIVITY: 0 HEALTH: 4

WHMIS CLASSIFICATION: CLASS D DIVISION 2B CLASS B DIVISION 2

CALIFORNIA PROPOSITION 65:

- A. This product contains a chemical known to the State of CA to cause birth defects or other reproductive harm.
- B. This product contains a chemical known to the State of CA to cause cancer.
- C. This product contains a chemical known to the State of CA to cause cancer and birth defects or other reproductive harm.

US state regulations:

US. Massachusetts RTK - Substance List

Diphenylmethane Diisocyanate [Isomers and Homologues] (CAS 9016-87-9)

US. New Jersey Worker and Community Right-to-Know Act

4,4'-Methylenediphenyl Diisocyanate (CAS 26447-40-5)

Diphenylmethane Diisocyanate [Isomers and Homologues] (CAS 9016-87-9)

US. Pennsylvania Worker and Community Right-to-Know Law

Diphenylmethane Diisocyanate [Isomers and Homologues] (CAS 9016-87-9)

US. Rhode Island RTK

Diphenylmethane Diisocyanate [Isomers and Homologues] (CAS 9016-87-9)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

SECTION 16 – OTHER INFORMATION

Prepared in accordance with 29 CFR 1910.1200

This Product has been classified in accordance with the hazard criteria of the Controlled Products

NA = not applicable

NE = not established

UN = unavailable

CL = Ceiling Limit

NEGL = Negligible

PROP. = Proprietary

“THE DATA INCLUDED HEREIN ARE PRESENTED IN ACCORDANCE WITH THE VARIOUS ENVIRONMENT, HEALTH AND SAFETY REGULATIONS. IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS DATA TO REMAIN CURRENTLY INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS OWN PROGRAM AND TO COMPLY WITH ALL NATIONAL, FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS APPLICABLE TO SAFETY, OCCUPATIONAL HEALTH, RIGHT-TO-KNOW AND ENVIRONMENTAL PROTECTION.”

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