



Línea gratuita: 87 PERMATEX
(877-376-2839)

6875 Parkland Boulevard, Solon
Ohio 44139

Ficha Técnica

Permatex® Soldadura de Epoxi

AAM Revisado 01/19

DESCRIPCIÓN DEL PRODUCTO

El epoxi Permatex® Steel Weld® es un sistema adhesivo epoxi de alta resistencia, de alta resistencia y de primera calidad. El epoxi Permatex® Steel Weld® se puede perforar, roscar y mecanizar una vez que esté completamente curado. Repare, rellena y pega la mayoría de las superficies metálicas. Es resistente a la mayoría de los fluidos del taller, incluidos combustibles, aceite, agua y solventes. **NOTA: Permatex® Steel Weld® no unirá plásticos de polietileno y polipropileno.**

BENEFICIOS DEL PRODUCTO

- No se encogerá
- No necesita sujeción
- No inflamable
- Color gris oscuro
- Resistente a los impactos
- Resistente al agua
- Resistente a altas temperaturas
- Utilizable en 30 minutos

APLICACIONES TÍPICAS

- Aluminio
- Latón
- Cromo
- Cobre
- Hierro
- Acero inoxidable
- Acero
- Zinc

INSTRUCCIONES DE USO

1. Proteja el área de trabajo de derrames accidentales.
2. La superficie debe estar limpia, seca y libre de grasa y aceite.
3. Desgasta ligeramente las superficies de contacto con papel de lija.
4. Retire la lengüeta de plástico de la punta de ambas boquillas.
5. Presione el émbolo de la jeringa o exprima de los tubos cantidades iguales de resina y endurecedor. Mezcle bien la resina y el endurecedor sobre una superficie limpia y desechable durante al menos un (1) minuto o hasta que tenga un color uniforme.
6. Aplicar sobre las superficies que se están reparando. Ensamble las piezas inmediatamente. Retire el exceso de epoxi inmediatamente.
7. Deje que la unión se ajuste al tiempo de fijación antes de manipularla o moverla. El producto se cura completamente en 24 horas.

Para la limpieza

1. Para cualquier limpieza, use alcohol isopropílico antes de dejar que el material se seque.

2. Lávese las manos con el limpiador de manos Permatex® Fast Orange® o con agua y jabón.

PROPIEDADES DEL MATERIAL NO CURADO

	Valor típico
Tipo químico	Epoxi y mercaptano/amina Resinas
Relación de mezcla	1:1
Apariencia	
Resina	Negro
Endurecedor	Blanco roto/Blanco
Olor	Leve
Gravedad específica	1.75 - 1.85
Punto de inflamación, TCC	>300°F
Viscosidad	Pegar

PROPIEDADES DE USO

	Jornada laboral	Hora del partido
84109	4 – 5 minutos	8 – 10 minutos
84209	4 – 5 minutos	8 – 10 minutos

Color final Gris
Rango de temperatura de -60 °F a +300 °F (continuo)
+350°F (intermitente)

INFORMACIÓN GENERAL

No se recomienda el uso de este producto en sistemas de oxígeno puro y/o ricos en oxígeno y no debe seleccionarse como adhesivo para cloro u otros materiales oxidantes fuertes.

Para obtener información sobre el manejo seguro de este producto, consulte la Hoja de datos de seguridad del material (MSDS).

INFORMACIÓN SOBRE PEDIDOS

Número de pieza	Tamaño del contenedor
84109	4 min. Epoxi multimetal, Jeringa doble de 0.84 onzas líquidas, cardada
84209	4 min. Epoxi multimetal, 2 tubos de 1 onza, cardados

ALMACENAMIENTO

Lo ideal es que los productos se almacenen en un lugar fresco y seco en recipientes sin abrir a una temperatura de entre 46 ° y 82 ° F (8 ° a 28 ° C), a menos que se indique lo contrario. El almacenamiento óptimo se encuentra en la mitad inferior de este rango de temperatura. Para evitar la contaminación del

producto no utilizado, no devuelva ningún material a su envase original.

NOTA

Los datos contenidos en este documento se proporcionan solo a título informativo y se consideran confiables. No podemos asumir la responsabilidad de los resultados obtenidos por otros

sobre cuyos métodos no tenemos control. **Permatex, Inc. renuncia específicamente a todas las garantías expresas o implícitas, incluidas las garantías de comerciabilidad o idoneidad para un propósito particular, que surjan de la venta o el uso de los productos de Permatex, Inc. y renuncia a cualquier responsabilidad por daños consecuentes o incidentales de cualquier tipo, incluida la pérdida de ganancias.**

NO PARA LAS ESPECIFICACIONES DEL PRODUCTO.
LOS DATOS TÉCNICOS CONTENIDOS EN ESTE DOCUMENTO SON SOLO DE REFERENCIA.
PÓNGASE EN CONTACTO CON EL DEPARTAMENTO DE SERVICIO TÉCNICO DE PERMATEX, INC. PARA OBTENER ASISTENCIA Y RECOMENDACIONES PARA SU APLICACIÓN ESPECÍFICA.
PERMATEX, INC., 6875 PARKLAND BOULEVARD, SOLON, OH 44139 TELÉFONO – (1-87PERMATEX)



SAFETY DATA SHEET

Revision Date 20-Mar-2018

Version 5

1. IDENTIFICATION

Product identifier

Product Name 84109 STEEL WELD (RESIN)

Other means of identification

Product Code PTX202005B

Recommended use of the chemical and restrictions on use

Recommended Use (Epoxy resin).
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

ITW Permatex
6875 Parkland Blvd.
Solon, OH 44139 USA

May Also Be Distributed by:

ITW Permatex Canada
35 Brownridge Road, Unit 1
Halton Hills, ON Canada L7G 0C6
Telephone: (800) 924-6994

24-hour emergency phone number Chem-Tel: 800-255-3924
International Emergency:
00+1+ 813-248-0585
Contract Number: MIS0003453

E-mail address mail@permatex.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Signal word

Warning

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause respiratory irritation

**Appearance** Gray**Physical state** Viscous liquid**Odor** Mild**Precautionary Statements - Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear protective gloves/protective clothing/eye protection/face protection
 Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment (see supplemental first aid instructions on this label)
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 Take off contaminated clothing and wash before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

- Contains epoxy constituents with an average molecular weight of ≤ 700

Unknown acute toxicity

23.5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance(s)

Chemical Name	CAS No	Weight-%
EPOXY RESIN (EPICHLOROHYDRIN, BISPENOL A)	25085-99-8	30 - 60
NEOPENTYL GLYCOL DIGLYCIDYL ETHER	17557-23-2	1 - 5

4. FIRST AID MEASURES

Description of first aid measures**General advice**

Get medical advice/attention if you feel unwell.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical

advice/attention.

Skin contact	IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂), Dry chemical, Foam

Unsuitable extinguishing media

None.

Specific hazards arising from the chemical

None in particular.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions

Environmental precautions Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents, Acids, Bases

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

Respiratory protection Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state Viscous liquid
Appearance Gray
Odor Mild
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	> 93 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	>1	Air = 1

Relative density	1.52
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	0
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions

Chemical stability

Stable under recommended storage conditions

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Excessive heat.

Incompatible materials

Strong oxidizing agents, Acids, Bases

Hazardous Decomposition Products

Carbon oxides

Phenols

Information on likely routes of exposure

Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact	May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Ingestion	Ingestion may cause irritation to mucous membranes.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
NEOPENTYL GLYCOL DIGLYCIDYL ETHER 17557-23-2	= 4500 mg/kg (Rat)	-	-

Information on toxicological effects**Symptoms** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Sensitization** No information available.

Germ cell mutagenicity No information available.
Carcinogenicity No information available.
 ACGIH (American Conference of Governmental Industrial Hygienists)
 A2 - Suspected Human Carcinogen
 NTP (National Toxicology Program)
 Known - Known Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present

Target Organ Effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document .
ATEmix (oral) 2727 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

30 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

US EPA Waste Number Not applicable

14. TRANSPORT INFORMATION

DOT

Proper shipping name: Not regulated

IATA

Proper shipping name: Not regulated

IMDG

Proper shipping name: Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA Complies

DSL/NDSL	Complies
EINECS/ELINCS	Not determined
ENCS	Not determined
IECSC	Complies
KECL	Complies
PICCS	Not determined
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
LIMESTONE 1317-65-3	X	X	X
SILICON 7440-21-3	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

WHMIS Hazard Class

D2B - Toxic materials

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	-
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Revision Date 20-Mar-2018

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet