Date of issue: 17. 08. 2015.

Date of revision: 08. 03. 2017.

Version: 2



SAFETY DATA SHEET

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

1.1. <u>Product identifier:</u>

61-860256-000-R Injecta-Patch Epoxy Resin 3 oz

Alternate Names: Injecta-Patch Epoxy Resin 3 oz. (75 ml)

1.2. Relevant identified uses of the mixture and uses advised against:

See Technical Data Sheet. For professional use.

1.3. <u>Details of the supplier of the safety data sheet:</u>

Brunswick Bowling Products, LLC

525 W. Laketon Ave. Muskegon, MI 49441. USA

1.3.1. Responsible person:

E-mail: <u>brunswick.hu@brunswickbowling.com</u>

1.4. <u>Emergency telephone number:</u> 24 hour Emergency Telephone No.: CHEMTEL +1 813-248-0585

Customer Service: Brunswick Bowling Products, LLC: 231-725-4966

SECTION 2: HAZARDS IDENTIFICATION

2.1. <u>Classification of the mixture:</u>

Classification according to Regulation 1272/2008/EC (CLP):

Skin corrosion 1B – H314 Serious eye damage 1 – H318 Skin sensitisation 1 – H317 Reproductive toxicity 2 – H361fd

Hazardous to the aquatic environment, Chronic 2 - H411

Warning H statements:

H314 – Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H361fd – Suspected of damaging fertility. Suspected of damaging the unborn child.

H411 – Toxic to aquatic life with long lasting effects.

2.2. <u>Label elements:</u>

Components which define the hazards: Diglycidyl ether of bisphenol A; Polypropylene glycol diglycidyl ether; Phenol, 4-nonyl-, branched









DANGER

Warning H statements:

H314 – Causes severe skin burns and eye damage.

H317 – May cause an allergic skin reaction.

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

H411 – Toxic to aquatic life with long lasting effects.

EUH 205 – Contains epoxy constituents. May produce an allergic reaction.

Date of revision: 08. 03. 2017.

Version: 2



Precautionary P statements:

- **P201** Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- **P261** Avoid breathing dust/ fume/gas/mist/ vapours/spray.
- **P264** Wash thoroughly after handling.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- **P280** Wear protective gloves/eye protection/face protection.
- P301 +P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- **P305 + P351 + P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P310** Immediately call a POISON CENTER/doctor.
- **P308 + P313** IF exposed or concerned: Get medical advice/attention.
- **P321** Specific treatment (see information on this label).
- P363 Wash contaminated clothing before reuse.
- P391 Collect spillage.
- **P405** Store locked up.
- **P501** Dispose of contents/container in accordance with local/national regulations.
- 1-5 % of the mixture consists of ingredient(s) of unknown toxicity.

2.3. Other hazards:

The product has no other known specific hazards for human or environment. Results of PBT and vPvB assessment: this product contains no PBT/vPvB chemicals.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance:

Not applicable.

3.2. <u>Mixture:</u>

Description	CAC	EU number REACH		Conc.	Classification: 1272/2008/EC (CLP)		
Description	CAS number	EU number	reg. nr.	(%)	Hazard pict.	Hazard cat.	H phrase
Diglycidyl ether of bisphenol A	25068-38-6	500-033-5	-	75 - 100	GHS07 GHS09 Warning	Eye Irrit. 2 Skin Irrit. 2 Skin Sens. 1 Aquatic Chronic 2	H319 H315 H317 H411
Polypropylene glycol diglycidyl ether*	9072-62-2	618-635-2	-	5 - 10	GHS07 Warning	Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1	H315 H319 H317
Phenol, 4-nonyl-, branched Index number: 601-053-00-8	84852-15-3	284-325-5	-	5 - 10	GHS08 GHS05 GHS07 GHS09 Danger	Repr. 2 Acute Tox. 4 Skin Corr 1B Aquatic Acute 1 Aquatic Chronic 1	H361fd H302 H314 H400 H410
Amorphous Silica*	7631-86-9	231-545-4	-	1 - 5	-	not classified	-
Fatty acids, tall-oilreaction products with iminodiethanol and boric acid*	proprietary	proprietary	-	1 - 5	-	unknown	-

Date of revision: 08. 03. 2017.

Version: 2



*: Substance classified by the manufacturer or substance which has no obligatory classification according to the EU regulations.

For the full text of H phrases: see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. <u>Description of first aid measures:</u>

General:

In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

IN CASE OF INGESTION:

Measures:

- If swallowed obtain immediate medical attention.
- Keep at rest.
- Do NOT induce vomiting.

IN CASE OF INHALATION:

Measures:

- Remove to fresh air, keep patient warm and at rest.
- If breathing is irregular or stopped, give artificial respiration.
- If unconscious place in the recovery position and obtain immediate medical attention.
- Give nothing by mouth.

IN CASE OF SKIN CONTACT:

Measures:

- Remove contaminated clothing.
- · Wash skin thoroughly with soap and water or use a recognized skin cleanser.

IN CASE OF EYE CONTACT:

Measures:

- In case of contact with eyes flush with water holding eyelids apart and moving the eyeballs (for at least 15 minutes).
- Obtain medical help.

4.2. <u>Most important symptoms and effects, both acute and delayed:</u>

Overview

Causes skin irritation.

Causes serious eye damage.

 $\label{eq:maycause} \mbox{May cause an allergic skin reaction.}$

Suspected of damaging fertility or the unborn child.

Eyes: Causes serious eye damage.

Skin: May cause an allergic skin reaction. Causes severe skin burns and eye damage.

See section 2 for further details.

4.3. <u>Indication of any immediate medical attention and special treatment needed:</u>

No data available.

SECTION 5: FIREFIGHTING MEASURES

5.1. <u>Extinguishing media:</u>

5.1.1. Suitable extinguishing media:

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

Choose extinguishing media depending on surrounding fire.

5.1.2. Unsuitable extinguishing media:

None known.

5.2. <u>Special hazards arising from the substance or mixture:</u>

The formation of dangerous decomposition products greatly depends on the circumstances of the combustion. A complex mixture of airborne solid, liquid and gas substances may occur, such as carbon monoxide, carbon dioxide and unidentified compounds.

Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advise for firefighters:

Wear self--contained respiratory protective device. Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

At higher temperature vapors can cause pressure build up in sealed containers.

Use water to cool containers exposed to fire.

Self-contained respirator equipment and full protective clothing required when smoke or fumes are generated.

Electrical grounding not recommended.

ERG Guide No. 171

Date of revision: 08. 03. 2017.

Version: 2



SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. <u>Personal precautions, protective equipment and emergency procedures:</u>
- 6.1.1 For non-emergency personnel:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

- 6.1.2. For emergency responders:
 - Put on appropriate personal protective equipment (see section 8).
- 6.2. Environmental precautions:
 - Do not allow spills to enter drains or waterways.
- 6.3. <u>Methods and material for containment and cleaning up:</u>

Collect the spilled product with non-combustible absorbent (sand, diatomite, acid binders, universal binders, sawdust), then place into a suitable, closed, properly labelled chemical waste container for removal/disposal. Ensure adequate ventilation.

6.4. <u>Reference to other sections:</u>

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. <u>Precautions for safe handling:</u>

Observe conventional hygiene precautions.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wash hands before eating, drinking, smoking or using toilet.

Promptly remove soiled clothing and wash thoroughly before reuse.

Technical measures:

No special measures required.

Precautions against fire and explosion:

No special measures required.

See section 2 for further details.

7.2. Conditions for safe storage, including any incompatibilities:

Technical measures and storage condition:

Handle containers carefully to prevent damage and spillage.

Incompatible materials: strong acids, strong bases, strong oxidizers, amines, and mercaptans.

Packaging material: no special prescriptions.

See section 2 for further details.

7.3. Specific end use(s):

No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. <u>Control parameters:</u>

Occupational exposure limit values:

The components of the mixture are not regulated with exposure limit value.

DNEL		Routes of exposure	Exposure frequency:	Remarks:
Worker	Consumer			
no data	no data	Dermal	Short term (acute)	no data available
available	available		Long term (repeated)	
no data	no data	Inhalative	Short term (acute)	no data available
available	available		Long term (repeated)	
no data	no data	Oral	Short term (acute)	no data available
available	available		Long term (repeated)	

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
no data	no data	no data	Short term (single use)	no data available
available	available	available	Long term (continuous)	
no data	no data	no data	Short term (single use)	no data available
available	available	available	Long term (continuous)	

Date of revision: 08. 03. 2017.

Version: 2



no data	no data	no data	Short term (single use)	no data available
available	available	available	Long term (continuous)	

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1 Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn. Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

- 8.2.2. Individual protection measures, such as personal protective equipment:
 - Eye/face protection: use appropriate protective glasses with side shields (EN 166). Full face protection should be
 used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be
 available.
 - 2. Skin protection:
 - a. Hand protection: use appropriate protective gloves (EN 374). Material: neoprene, butyl-rubber, or nitrile-rubber.
 - b. Other: use appropriate protective clothes.
 - 3. Respiratory protection: in case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
 - 4. Thermal hazards: none known.
- 8.2.3. Environmental exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. <u>Information on basic physical and chemical properties:</u>

	Parameter		Test method:	Remarks:
1.	Appearance:	liquid; colour varies	S	
		according to produc	t	
		specification		
2.	Odour:	mild		
3.	Odour threshold:	no data available		
4.	pH value:	no data available		
5.	Melting point/ freezing point:	no data available		
6.	Initial boiling point and boiling range:	>260 °C (>300 °F)		
<i>7</i> .	Flash point:	290°C/480°F		
8.	Evaporation rate:	no data available		
9.	Flammability (solid, gas):	not applicable		
10	. Upper/lower flammability or explosive	no data available		
lin	nits:			
11	. Vapour pressure:	no data available		
12	Vapour density:	no data available		
13	. Relative density:	1,2		
14	. Solubility(ies):	not miscible or		
		difficult to mix		
		with water		
15	. Partition coefficient: n-octanol/water:	no data available		
16	. Auto-ignition temperature:	not self-igniting		
17	. Decomposition temperature:	no data available		
18	. Viscosity:	no data available		
19	. Explosive properties:	no data available		
_		- 10		

Date of revision: 08. 03. 2017.

Version: 2



20. Oxidizing properties:

no data available

9.2. <u>Other information:</u>

Percent Solids (by weight) 99 %

Organic Solvents: 0 %.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:

Hazardous polymerization may occur if product is not handled as per instructions.

10.2. <u>Chemical stability:</u>

This product requires another product to react at room temperature. Mix and use product in accordance with directions for safety. Excessive heat and fume generation can occur if improperly handled. Not sensitive to mechanical impact.

10.3. Possibility of hazardous reactions:

Reacts with amines. Reacts with catalysts, oxidizing agents and strong alkali. Hazardous polymerization may occur if mixed with amines in large masses and/or with heat.

10.4. <u>Conditions to avoid:</u>

None known.

10.5. <u>Incompatible materials:</u>

Strong acids, strong bases, strong oxidizers, amines, and mercaptans.

10.6. <u>Hazardous decomposition products:</u>

None known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. <u>Information on toxicological effects:</u>

Acute toxicity: none known.

Skin corrosion/irritation: causes severe skin burns.

Serious eye damage/eye irritation: causes serious eye damage.

Respiratory or skin sensitisation: may cause an allergic skin reaction. \\

Germ cell mutagenicity: none known.

Carcinogenicity: none known.

Reproductive toxicity: suspected of damaging fertility. Suspected of damaging the unborn child.

STOT-single exposure: none known.

STOT-repeated exposure: none known.

Aspiration hazard: none known.

 $11.1.1. \quad For substances subject to registration, brief summaries of the information derived from the test conducted:\\$

No data available.

11.1.2. Relevant toxicological properties of the hazardous substances:

Acute toxicity:

Diglycidyl ether of bisphenol A (CAS: 25068-38-6):

LD50 (oral, rat): >5000 mg/kg LD50 (dermal, rabbit): 20000 mg/kg

Polypropylene glycol diglycidyl ether (CAS: 9072-62-2):

LD50 (oral, rat): 2000 mg/kg LD50 (dermal, rabbit): 2000 mg/kg **Amorphous Silica** (CAS: 7631-86-9): LD50 (oral, rat): 5110 mg/kg

LD50 (dermal, rabbit): 5000 mg/kg

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Carcinogen data:

CAS No.	Ingredient	Source	Value
7631-86-9	Amorphous Silica	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No
9072-62-2	Polypropylene	OSHA	Select Carcinogen: No
	glycol diglycidyl	NTP	Known: No; Suspected: No
	ether	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
25068-38-6	Diglycidyl ether of	OSHA	Select Carcinogen: No
	bisphenol A	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No

Date of revision: 08. 03. 2017. Version: 2



84852-15-3	Phenol, 4-nonyl-,	OSHA	Select Carcinogen: No
	branched	NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
Proprietary	Fatty acids,	OSHA	Select Carcinogen: No
	tall-oil-reaction	NTP	Known: No; Suspected: No
	products with	IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No
	iminodiethanol and		
	boric acid		

11.1.3. Information on likely routes of exposure:

Ingestion, inhalation, skin contact, eye contact.

11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitizer. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitization, possibly with cross--sensitization to other epoxies. Skin contact with the preparation and exposure to spray mist and vapor should be avoided.

11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Suspected of damaging fertility. Suspected of damaging the unborn child.

11.1.6. Interactive effects:

No data available.

11.1.7. Absence of specific data:

No information.

11.1.8. Other information:

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. <u>Toxicity:</u>

Toxic to aquatic life with long lasting effects.

Information about the components:

Diglycidyl ether of bisphenol A (CAS: 25068-38-6):

LC50 (Leuciscus idus): 3,1 mg/l/96 h EC50 (Daphnia magna): 1,4 mg/l/48 h

Polypropylene glycol diglycidyl ether (CAS: 9072-62-2):

LC50 (Pimephales promelas): 67 mg/l/96 h EC50 (Daphnia magna): 90 mg/l/48 h

Phenol, 4-nonyl-, branched (CAS: 84852-15-3):

LC50 (fathead minnow): 0,128 mg/l/96 h

EC50 (Algae): 0,0563 mg/l/48 h

Amorphous Silica (CAS: 7631-86-9):

LC50 (Danio rerio): 10000 mg/l/96 h

EC50 (Daphnia magna): 10000 mg/l/48 h

ErC50 (Scenedesmus subspicatus): 10000 mg/l/72 h

12.2. <u>Persistence and degradability:</u>

No data available.

12.3. <u>Bioaccumulation potential:</u>

No data available.

12.4. <u>Mobility in soil:</u>

No data available.

12.5. Results of PBT and vPvB assessment:

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Disposal according to the local regulations.

13.1.1. Information regarding the disposal of the product:

Date of revision: 08. 03. 2017.

Version: 2



Do not empty into drains.

Do not dispose together with household waste.

European Waste Code:

For this product no waste disposal key according the European Waste Catalogue (EWC) can be determined, as only the purpose of application defined by the user enables an allocation. The European waste code number has to be determined after a discussion with a specialist dealing with waste disposal.

13.1.2. Information regarding the disposal of the packaging:

Dispose according to the relevant regulations.

13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified: None known.

13.1.4. Sewage disposal:

None known.

13.1.5. Special precautions for any recommended waste treatment:

No data available.

SECTION 14: TRANSPORT INFORMATION

Not dangerous good in sense of the transport regulations.

14.1. <u>UN Number:</u>

None.

14.2. <u>UN proper shipping name:</u>

None.

14.3. <u>Transport hazard class(es):</u>

None.

14.4. Packaging group:

None.

14.5. <u>Environmental hazards:</u>

Marine Pollutant: Yes (Diglycidyl ether of bisphenol A).

14.6. <u>Special precautions for user:</u>

Per IMDG 2.10.2.7, IATA Special Provision A197, and 49 CFR 171.4(c)(2) not subject to marine pollutant provisions when inner containers of combination packaging less than 5 L (liquids) or 5 kg (solids).

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. <u>Safety, health and environmental regulations/legislation specific for the substance or mixture:</u>

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. <u>Chemical safety assessment:</u> no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:

The safety data sheet has been revised according to Regulation (EU) 2015/830 (Section 1-16).

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Data sources:

previous version of the safety data sheet (17.08.2015.)

Date of revision: 08. 03. 2017. Version: 2



Methods used for the classification according to Regulation 1272/2008/EC:

Skin corrosion 1B - H314	Based on calculation method
Serious eye damage 1 – H318	Based on calculation method
Skin sensitisation 1 – H317	Based on calculation method
Reproductive toxicity 2 – H361fd	Based on calculation method
Hazardous to the aquatic environment, Chronic 2 – H411	Based on calculation method

Relevant H-Phrases (number and full text) of Section 2 and 3:

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H315 - Causes skin irritation.

H317 – May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H319 - Causes serious eye irritation.

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

H400 – Very toxic to aquatic life.

H410 – Very toxic to aquatic life with long lasting effects.

H411 – Toxic to aquatic life with long lasting effects.

Training advice: no data available.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by: ToxInfo Kft.

Professional help regarding the explanation of the safety data sheet: +36 70 335 8480; info@msds-europe.com